Lymphoma - Hodgkin - Treatment Options [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 10/2015

ON THIS PAGE: You will learn about the different ways doctors use to treat people with this type of lymphoma. To see other pages, use the menu on the side of your screen.

This section outlines treatments that are the standard of care (the best known treatments available) for this type of lymphoma. When making treatment plan decisions, patients are also encouraged to consider clinical trials as an option. A clinical trial is a research study to test a new approach to treatment to evaluate whether it is safe, effective, and possibly better than the standard treatment. Clinical trials may test such approaches as a new drug, a new combination of standard treatments, or new doses of current therapies. Your doctor can help you review all treatment options. For more information, see the About Clinical Trials [3] and Latest Research [4] sections.

Treatment overview

In cancer care, different types of doctors and other health care professionals often work together to create a patient?s overall treatment plan that combines different types of treatments. This is called an interdisciplinary team [5]. Cancer care teams also include a variety of other health care professionals, including physician assistants, oncology nurses, nurse practitioners, social workers, pharmacists, counselors, dietitians, and others.

The original treatments for Hodgkin lymphoma, developed in the 1960s and 1970s, were very effective at treating the disease. However, some people who received these treatments developed serious side effects later in life, including infertility (the inability to have children), heart problems (such as heart failure, leaky heart valves, and heart attacks), and secondary cancers, such as lung cancer and breast cancer (in women). These long-term problems were partly caused by the types of chemotherapy used at that time and partly caused by the use of high doses of radiation therapy delivered to large areas of the body. Learn more about the late effects of treatment for Hodgkin lymphoma [6].

To avoid or reduce the risk of these problems, current treatment plans for Hodgkin lymphoma use newer types and doses of chemotherapy and direct radiation therapy at smaller areas of the body.

Most people with classical Hodgkin lymphoma, even stage I or stage II, often receive some chemotherapy, followed by radiation therapy to the affected lymph node areas. For some people with early-stage disease (stage I or II), it may be possible to have treatment with a relatively short course of chemotherapy, with or without radiation therapy. This applies to only a few patients and should be discussed with your doctor. For stage III or stage IV disease, chemotherapy is the primary treatment, although additional radiation therapy may be recommended, especially to areas of large lymph nodes.

Descriptions of the most common treatment options for Hodgkin lymphoma are listed below. Treatment options and recommendations depend on several factors, including the type and stage of cancer, possible side effects, the results of regular PET-CT scans during treatment, and the patient?s preferences and overall health. Your care plan may also include treatment for symptoms and side effects, an important part of cancer care. Take time to learn about all of your treatment options and ask about anything that is unclear. Also, talk about the goals of each treatment with your doctor and what you can expect while receiving the treatment, including any potential side effects. Learn more about making treatment decisions [7].

Chemotherapy

Chemotherapy is the use of drugs to destroy cancer cells, usually by stopping the cancer cells? ability to grow and divide. Chemotherapy is given by a medical oncologist, a doctor who specializes in treating cancer with medication, or a hematologist, a doctor who specializes in treating blood disorders.

Systemic chemotherapy gets into the bloodstream to reach cancer cells throughout the body. Common ways to give chemotherapy include an intravenous (IV) tube placed into a vein using a needle or by mouth, in a pill or capsule that is swallowed. Many people with Hodgkin lymphoma receive chemotherapy through a port-a-cath placed under the skin. Learn more about catheters and ports in cancer treatment [8].

A chemotherapy regimen usually consists of a specific number of cycles given over a set period of time. A patient may receive 1 drug at a time or combinations of different drugs at the same time.

First-line chemotherapy

Many different types of chemotherapy may be used for Hodgkin lymphoma. The most commonly used combination of drugs in the United States is called ABVD. Another combination of drugs, known as BEACOPP, is now widely used in Europe and is being used more often in the United States. The drugs that make up these 2 common combinations of chemotherapy are listed below. You may come across other combinations that are less commonly used and not listed here.

- **ABVD**: Doxorubicin (Adriamycin), bleomycin (Blenoxane), vinblastine (Velban, Velsar), and dacarbazine (DTIC-Dome). ABVD chemotherapy is usually given every 2 weeks for 2 to 8 months.
- **BEACOPP**: Bleomycin, etoposide (Toposar, VePesid), doxorubicin, cyclophosphamide (Cytoxan, Neosar), vincristine (Vincasar PFS, Oncovin), procarbazine (Matulane), and prednisone (multiple brand names). There are several different treatment schedules, but different drugs are usually given every 2 weeks.

The type of chemotherapy, number of cycles of chemotherapy, and the additional use of radiation therapy are based on the stage of the Hodgkin lymphoma and the type and number of prognostic factors. Talk with your doctor about the specifics of your treatment plan.

Second-line chemotherapy

If Hodgkin lymphoma comes back after initial (first-line) treatment with ABVD or BEACOPP, known as a recurrence, there are several second-line treatments. Many of these treatments are given in preparation for an autologous stem cell transplant (see below), but they can also be given to control the disease and its symptoms.

- **ICE**: Ifosfamide (Ifex), carboplatin (Paraplatin), and etoposide. ICE is usually given every 2 or 3 weeks for 2 to 3 months.

- **ESHAP or DHAP**: Etoposide, methylprenisolone (Solu-Medrol), high dose cytarabine (Cytosar-U), cisplatin (Platinol); OR dexamethasone (multiple brand names), high dose cytarabine, and cisplatin. ESHAP or DHAP regimens are given every 3 weeks for 2 to 3 months.

- **GVD, Gem-Ox, or GDP**: Gemcitabine (Gemzar), vinorelbine (Navelbine), doxorubicin; OR gemcitabine and oxaliplatin (Eloxatin); OR gemcitabine, dexamethasone, and cisplatin. Gemcitabine-based regimens are either given 2 weeks in a row followed by an off-week or every other week.

- **Brentuximab vedotin (Adcetris)**: Brentuximab vedotin (Adcetris) is an antibody-drug conjugate. This means it delivers chemotherapy only to cells that have a special protein on the surface called CD30. Brentuximab vedotin is usually given every 3 weeks for up to 16 cycles, although sometimes it is given every 4 weeks. This drug is an important therapy once chemotherapy stops working. It is being tested as an adjunct or replacement for chemotherapy before stem cell transplantation for patients with relapsed Hodgkin lymphoma. It was also approved in 2015 by the U.S. Food and Drug Administration (FDA) for use after stem cell transplantation in certain patients at high risk for further disease growth and spread.

It is unclear which of these chemotherapy treatments is best for patients with Hodgkin lymphoma. The best treatment may differ depending on the type and stage of the lymphoma. For this reason, many clinical trials [3] are underway to compare these different treatments. These clinical trials are designed to find out which combination works best with the fewest short-term and long-term side effects.

During chemotherapy, your doctors will usually repeat some of the original tests, especially PET-CT scans. These tests are used to watch the lymphoma and see how well treatment is working.

The side effects of chemotherapy depend on the individual and the dose used, but they can include fatigue, risk of infection, nausea and vomiting, peripheral neuropathy, hair loss, loss of appetite, and constipation. These side effects usually go away once treatment is finished. Although the risk of long-term side effects has decreased as treatments have improved, chemotherapy still can cause long-term side effects. People with lymphoma may also have concerns about if or how their treatment may affect their sexual function and fertility [9]. Talk about these topics with the health care team before treatment begins. Learn more about late effects of treatment [6].

Learn more about the basics of chemotherapy [10] and preparing for treatment [11]. The medications used to treat cancer are continually being evaluated. Talking with your doctor is often the best way to learn about the medications prescribed for you, their purpose, and their potential side effects or interactions with other medications. Learn more about your prescriptions by using searchable drug databases [12].

Radiation therapy

Radiation therapy is the use of high energy x-rays or other particles to destroy cancer cells. A radiation oncologist is a doctor who specializes in giving radiation therapy to treat cancer. Radiation therapy for Hodgkin lymphoma is always external-beam radiation therapy, which is radiation given from a machine outside the body. A radiation therapy regimen (schedule) usually consists of a specific number of treatments given over a set period of time.

Whenever possible, radiation therapy is now directed only at the affected lymph node areas. This helps reduce the risk of damaging healthy tissues. Newer radiation therapy techniques that may be used for some patients include:

- Involved-site radiotherapy, which focuses the radiation on the lymph nodes that contain cancer
- Intensity modulated radiotherapy (IMRT), which varies the strength and direction of the radiation beams so less healthy tissue is affected
- Proton therapy, which uses protons rather than x-rays to treat the cancer.

Immediate side effects from radiation therapy depend on the area of the body that is being treated. These may include fatigue, mild skin reactions, upset stomach, and loose bowel movements. Patients who receive radiation to the neck may have a sore mouth and/or throat. Most side effects go away soon after treatment is finished.

Although the risk for long-term side effects has decreased with improvements in treatment, radiation therapy may still cause long-term side effects, also called late effects [13], including secondary cancers and vascular damage. To reduce the risk of long-term side effects, clinical trials are being done to find out the best doses and smallest possible area to direct the radiation therapy.

Learn more about the basics of radiation therapy [14].

Stem cell transplantation/bone marrow transplantation

A stem cell transplant is a medical procedure in which a patient?s bone marrow is replaced by highly specialized cells called hematopoietic stem cells that develop into healthy bone marrow. Hematopoietic stem cells are blood-forming cells found both in the bloodstream and in the bone marrow. Today, this procedure is more commonly called a stem cell transplant, rather than bone marrow transplant, because it is stem cells in the blood that are typically being transplanted, not the actual bone marrow tissue.

Before recommending transplantation, doctors will talk with the patient about the risks of this treatment and consider several other factors, such as the results of any previous treatment and the patient?s age and general health. It is very important to talk with a doctor at an experienced transplant center about the risks and benefits of stem cell transplantation.

Stem cell transplantation is not used as a first treatment for Hodgkin lymphoma, but it may be recommended for patients who have lymphoma remaining after chemotherapy or if the lymphoma returns following treatment.

There are 2 types of stem cell transplantation depending on the source of the replacement blood stem cells: autologous (AUTO) and allogeneic (ALLO).

In an AUTO transplant, the patient?s own stem cells are used. The stem cells are collected from the patient when he or she is in remission from previous treatment. The stem cells are then frozen until they are needed. This type of transplant is a means of intensifying chemotherapy doses to destroy residual tumor cells while providing stem cells to permit normal bone marrow and blood cell recovery.

In an ALLO transplant, stem cells are obtained from a donor whose tissue matches the patient?s on a genetic level. This testing is called HLA-typing. Most often, a patient?s brother or sister serves as the donor, although an unrelated person can be a donor as well.

For both types, the goal of transplantation is to destroy all of the cancer cells in the marrow, blood, and other parts of the body using chemotherapy and/or radiation therapy and then allow replacement blood stem cells to create healthy bone marrow. The chemotherapy and/or radiation therapy given before the transplant also suppress the patient?s bone marrow tissue and the patient?s immune system so that, in an ALLO transplant, the donor cells are not rejected by the body and in fact can be active in destroying residual tumor cells.

It is important to talk about the potential risks and benefits of both these types of transplants with the doctor in order to determine the best choice for an individual patient.

Learn more about the basics of stem cell/bone marrow transplantation [15].

Getting care for symptoms and side effects

Hodgkin lymphoma and its treatment often cause side effects. In addition to treatment to slow, stop, or eliminate the disease, an important part of care is relieving a person?s symptoms and side effects. This approach is called palliative or supportive care, and it includes supporting the patient with his or her physical, emotional, and social needs.

Palliative care is any treatment that focuses on reducing symptoms, improving quality of life, and supporting patients and their families. Any person, regardless of age or type and stage of cancer, may receive palliative care. It works best when palliative care is started as early as needed in the cancer treatment process.

People often receive treatment for the lymphoma and treatment to ease side effects at the same time. In fact, patients who receive both often have less severe symptoms, better quality of life, and report they are more satisfied with treatment.

Palliative treatments vary widely and often include medication, nutritional support, relaxation techniques, emotional support, and other therapies. You may also receive palliative treatments similar to those meant to eliminate the cancer, such as chemotherapy or radiation therapy. Talk with your doctor about the goals of each treatment in your treatment plan.

Before treatment begins, talk with your health care team about the possible side effects of your specific treatment plan and palliative care options. And during and after treatment, be sure to tell your doctor or another health care team member if you are experiencing a problem so it can be addressed as quickly as possible.

Learn more about palliative care [16].

Progressive Hodgkin lymphoma

Progressive disease occurs when the cancer becomes larger or spreads while the original lymphoma is being treated. However, progressive disease is uncommon for people with Hodgkin lymphoma.

Patients with this diagnosis are encouraged to talk with doctors who are experienced in treating this stage of cancer, because there can be different opinions about the best treatment plan. Learn more about getting a second opinion [17] before starting treatment, so you are comfortable with the treatment plan chosen. This discussion may include clinical trials [3].

For most patients, a doctor will recommend a stem cell transplant (see above). This treatment appears to be more effective for progressive Hodgkin lymphoma than standard chemotherapy. Palliative care is also important to help relieve symptoms and side effects.

For most patients, a diagnosis of progressive lymphoma is very stressful and, at times, difficult to bear. Patients and their families are encouraged to talk about the way they are feeling with doctors, nurses, social workers, or other members of the health care team. It may also be helpful to talk with other patients, including through a support group.

Remission and the chance of recurrence

A remission is when lymphoma cannot be detected in the body and there are no symptoms. This may also be called having ?no evidence of disease? or NED.

A remission may be temporary or permanent. This uncertainty causes many people to worry that the cancer will come back. While many remissions are permanent, it?s important to talk with your doctor about the possibility of the disease returning. Understanding your risk of recurrence and the treatment options may help you feel more prepared if the lymphoma does return. Learn more about coping with the fear of recurrence [18].

If the lymphoma does return after the original treatment, it is called recurrent lymphoma. Recurrence is uncommon for people with Hodgkin lymphoma. However, if Hodgkin lymphoma does recur, a cycle of testing will begin again to learn as much as possible about the recurrence. After testing is done, you and your doctor will talk about your treatment options.

Most often, the first step is to give a "second-line" chemotherapy treatment, such as ICE, ESHAP, DHAP, gemcitabine-based treatments, or brentuximab vedotin (see Chemotherapy above).

The goal of chemotherapy is to regain control over the recurrent Hodgkin lymphoma. For most patients, this treatment is used to prepare for a stem cell transplant, which provides the best possible chance of curing the disease. Radiation therapy may be incorporated into the treatment plan, either before or after a stem cell transplant, especially if radiation therapy was not used during the initial treatment period. Your doctor may also suggest clinical trials that are studying new ways to treat this type of recurrent lymphoma. Whichever treatment plan you choose, palliative care will be important for relieving symptoms and side effects.

People with recurrent lymphoma often experience emotions such as disbelief or fear. Patients are encouraged to talk with their health care team about these feelings and ask about support services to help them cope.

Learn more about dealing with cancer recurrence [19].

If treatment fails

Recovery from lymphoma is not always possible. If the lymphoma cannot be cured or controlled, the disease

may be called advanced or terminal.

This diagnosis is stressful, and advanced cancer is difficult to discuss for many people. However, it is important to have open and honest conversations with your doctor and health care team to express your feelings, preferences, and concerns. The health care team is there to help, and many team members have special skills, experience, and knowledge to support patients and their families. Making sure a person is physically comfortable and free from pain is extremely important.

Patients who have advanced cancer and who are expected to live less than 6 months may want to consider a type of palliative care called hospice care. Hospice care is designed to provide the best possible quality of life for people who are near the end of life. You and your family are encouraged to think about where you would be most comfortable: at home, in the hospital, or in a hospice environment. Nursing care and special equipment can make staying at home a workable alternative for many families. Learn more about advanced care planning [20].

After the death of a loved one, many people need support to help them cope with the loss. Learn more about grief and loss [21].

The next section in this guide is About Clinical Trials [3]*, and it offers more information about research studies that are focused on finding better ways to care for people with lymphoma. Or, use the menu on the side of your screen to choose another section to continue reading this guide.*

Links:
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[2] http://www.cancer.net/about-us
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