

TREATMENT INFORMATION SERIES

Clinical Trials

CHORDOMA FOUNDATION

Table of contents

Understanding clinical trials 2

- Locations of clinical trials
- Safety of clinical trials
- Reasons to participate

Clinical trial phases 4

- Phase 1: Safety and dosage
- Phase 2: Efficacy
- Phase 3: Comparing to other treatments
- Phase 4: Long-term use

Considering whether to join a clinical trial 6

- Medical Advisory Board recommendations
- Possible risks and benefits
- Other considerations

Finding a trial that's right for you 10

- Trials for chordoma patients
- Eligibility criteria

Enrolling in a trial 13

- Informed consent

How we can help 15

The Chordoma Foundation is committed to helping patients and caregivers make the most informed treatment decisions. We created the Treatment Information Series to provide you with in-depth information about each aspect of treatment that may be involved in your chordoma journey. The complete series, as well as other materials for patients and caregivers, is available at **chordoma.org/educational-materials**.

Understanding clinical trials

A clinical trial is a research study in which people volunteer to test the safety and effectiveness of new treatments. All new drugs and medical devices have to be tested in clinical trials before they can be approved by regulatory agencies like the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA) for use in people.

There are clinical trials for many types of cancer treatments, including drugs, immunotherapies, surgery, and radiation. Some trials are specific to one type of cancer, such as chordoma. Other trials may include patients with many types of cancer. Additionally, the treatment being tested might not always be experimental or new; for example, a drug that is already approved for another cancer could be studied in a clinical trial to see if it also benefits chordoma patients.

The Chordoma Foundation works to get promising new treatments for chordoma into clinical trials through our Drug Screening Program and Clinical Trials Program.

Learn more about our Drug Screening Program at **chordoma.org/drug-screening**

Learn more about our Clinical Trials Program at **chordoma.org/clinical-trials-program**

Clinical trial locations

Clinical trials are conducted by doctors at major medical centers, academic institutions, and community hospitals. Sometimes doctors in private practice are involved in clinical trials in collaboration with a larger group. The doctors who conduct trials are called principal investigators and there are also clinical trial nurses and research coordinators who help carry out the studies. Clinical trials are usually very expensive to conduct. Financial support and sponsorship of trials can come from government programs and agencies, pharmaceutical companies, academic medical centers, non-profit or family foundations, or by the doctors conducting the trial.

Safety of clinical trials

Patient participation in clinical trials is completely voluntary and the rights of participants are protected by law. Every medical institution has an oversight committee whose purpose is to ensure that patients' rights are protected. Because clinical trials are studying new treatments, there can be risks involved. The trial investigators are required by law to share detailed information with patients about the trial and the treatment being studied before they enroll, to make sure patients understand and agree to any risks involved in participating. This process is called informed consent.

Reasons to participate

Clinical trials are important treatment options for any cancer patient to consider. Because standard therapies for chordoma are very limited, a clinical trial may provide an opportunity to receive a new, experimental therapy that may be more effective than the currently available options. It is important to remember, however, that the trial therapy may also be less effective than other options. Clinical trials may also make it possible for patients to gain access to clinically available therapies at a much lower cost than paying out-of-pocket for an off-label therapy. In addition, chordoma patients who participate in clinical trials contribute to knowledge that can guide treatment for future patients and potentially help identify new ways of treating this rare cancer.

Clinical trial phases

Clinical trials are divided into different phases, which correspond in general to the design and goals of the study.

Phase 1: Safety and dosage

The main goals of Phase 1 trials are to determine the safety, possible side effects, and recommended dose of a new drug. Some studies are also designed to get an early look at the ability of the drug to treat cancer. In this phase, the number of patients enrolled is usually small and patients are carefully monitored for side effects. Because this phase has the most potential risk, Phase 1 trials are typically done at major cancer centers.

Phase 2: Efficacy

Once Phase 1 trials are complete and the safety of a treatment is established, it can then be studied in a Phase 2 trial. The goal of Phase 2 trials is to gain more evidence on whether a treatment is effective for treating a specific disease. Effectiveness is determined in different ways depending on the type of treatment being studied. Outcomes measured for Phase 2 trials include stopping the growth of a tumor, or even shrinking a tumor. Because the side effects are generally known for the treatments being studied in Phase 2 trials, they usually enroll a greater number of patients and can be done in community hospitals or even in doctors' offices in addition to major cancer centers.

Phase 3: Comparing to other treatments

Phase 3 trials investigate the new treatment in comparison with something else. This could include, for example, a placebo or the current standard treatment. The goal is typically to determine if the new treatment is more effective. Phase 3 trials involve more patients and are conducted for a longer period of time than either of the first two phases. Like Phase 2, Phase 3 trials can take place in a variety of settings, from major cancer centers to doctors' offices.



When possible, Phase 3 trials are double-blinded, which means that neither patients nor researchers know which treatment a patient is getting, and sometimes a placebo is used. Placebos are rare in clinical trials for cancer treatments, but they are sometimes used to help researchers easily identify the effects of a new treatment. Trial participants will be told as part of the informed consent process if they might get a placebo. If you are considering participating in a study that uses a placebo, you should ask the trial team if at any point you would have the chance to receive the drug being tested if you were originally given the placebo.

If a new treatment is shown to be effective in trials, that treatment can be submitted to regulatory agencies, like the FDA and EMA, for approval. Currently there are no drugs that have reached the approval stage for the treatment of chordoma.

Phase 4: Long-term use

Phase 4 trials are less common than the other phases. They study the long-term safety and effectiveness of a treatment after it has been approved for use in patients.



Considering whether to join a clinical trial

Clinical trials can be beneficial for patients at any stage of disease. However, because surgery and radiation are the recommended treatments for newly diagnosed chordoma patients, clinical trials for chordoma are most often designed for patients who have a recurrence, or who have advanced disease — meaning the tumor has metastasized (spread) or can no longer be fully treated with surgery and radiation.

Clinical trial participation is an important consideration in these cases. Currently there are few effective treatments for chordoma patients with advanced or metastatic disease, so clinical trials may provide an important treatment option.

For more information about enrolling in a clinical trial, contact a Chordoma Foundation Patient Navigator at **chordoma.org/request-help**

Possible risks and benefits

Deciding whether to take part in a clinical trial is an important and sometimes difficult process. If you are considering trials as an option, it is important to carefully consider the possible risks and benefits of participating with your doctors and your family.

One potential risk of participating in a clinical trial is that the treatment being studied in the trial will not be effective. You may also experience unexpected side effects, or side effects that are worse than those of other available treatments. **It is very important that you tell the trial team about any side effects you experience while being treated in a clinical trial.** They will determine if what you're experiencing is related to the trial treatment, and also what can be done to help ease the side effects you are experiencing. Because treatments being studied in a clinical trial must still be approved by regulatory agencies, it's critical that researchers have all the facts about both the benefits and downsides of the treatment. If the treatment being tested is causing more harm than good to participants, or participants are experiencing severe side effects, researchers are obligated to stop the trial and offer other treatment options instead.

Potential benefits of participating include the possibility that you could receive a new treatment before it is available to others. You will also be under close, regular monitoring by the doctors who are the investigators for the trial, which can be beneficial both for your general health and for your cancer treatment. In most cases, the treatment being studied in the trial is provided to the study participants at no cost. However, care that is considered standard medical care is typically covered by insurance, thus, you could be responsible for co-pays and deductibles.

Clinical trials are also beneficial to the medical and patient communities in general. By participating in a trial, you can help researchers answer important questions about what types of treatments are most effective and help improve care for future chordoma patients.

Other considerations



Contact your insurance provider or health system to determine what they will cover.

The treatments being studied in clinical trials are usually given at no cost to the patient, but there are other costs that may not be covered by the trial if they are considered part of regular cancer care. This can include lab tests, imaging, physician co-pays, or treatment for side effects. You should check with your insurance provider or health system to learn more about how these costs are paid for.

There may be financial assistance available to help patients participate in clinical trials. For example, the American Cancer Society and the Lazarex Foundation are two organizations in the U.S. who offer this assistance.



Know what is expected of you.

Clinical trials require that participants visit the trial site on a regular basis for checkups and to be given the treatment itself. The schedule of visits depends on the way the trial is designed. For example, a Phase 2 or 3 trial might require a check-up and lab tests only every few weeks, at which time you also receive an infusion of an IV drug or a supply of oral medication. In contrast, a Phase 1 study might have multiple visits per week that could take up the whole day. If you are not local to the site where you would enroll in the trial, you will have to consider whether you will be able to travel to the trial site for all your visits. The costs of travel can get very high, and the frequency of the travel can also cause physical and emotional stress to both the patient and the caregiver.

Medical Advisory Board recommendations

Though each patient's situation is unique, in general, the Chordoma Foundation Medical Advisory Board (MAB) recommends that individuals with recurrent or advanced disease pursue treatment options in the following order of priority:

1. **Chordoma-specific clinical trials**
   Start by considering trials designed specifically for chordoma patients. These trials are likely to have strong scientific justification and to be conducted by teams with significant experience caring for chordoma patients.
2. **Other relevant clinical trials recommended by an experienced physician**
   If you are not eligible for any chordoma-specific trials, ask your oncologist about other clinical trials that may be open to you.
3. **Off-label therapy with evidence of clinical benefit for chordoma patients**
   While there are currently no drugs approved for the treatment of chordoma, some drugs that are approved for the treatment of other cancers have shown modest activity in chordoma patients. In some countries, doctors can choose to prescribe these drugs to chordoma patients if they believe they will be of benefit. This is called "off-label" use. If you are not eligible for any clinical trials, consult with your oncologist about off-label use of approved drugs that have been used to treat chordoma patients.


For a list of trials enrolling chordoma patients, visit our Clinical Trials Catalogue at **chordoma.org/clinical-trials**


Learn more about systemic therapy for chordoma at **chordoma.org/systemic-therapy**

Finding a trial that's right for you

If you decide that you'd like to join a clinical trial, the Chordoma Foundation Medical Advisory Board (MAB) recommends that all patients with recurrent or advanced chordoma consult with their medical team — including an experienced chordoma medical oncologist — about participating in a clinical trial. This can help you determine which trial might be the best option for you based on your medical history and current situation.

Trials for chordoma patients

The Chordoma Foundation is a resource for clinical trials. Our Clinical Trials Catalogue lists all chordoma-specific clinical trials, as well as trials that our MAB has determined are relevant to chordoma patients based on what we know about the biology of chordoma in relation to the type of drug being studied in the trial. The Catalogue is available at **chordoma.org/clinical-trials**, and listings include information on the treatment being studied, the locations of trial sites, and links to learn more about the trial.

You may also try searching for a clinical trial on your own through online clinical trial databases like **ClinicalTrials.gov**, which lists clinical trials registered with the National Institutes of Health in the U.S., or the World Health Organization International Clinical Trial Registry Platform (WHO ICTRP) at **who.int/ictrp/en/**. These databases can be searched by disease type, treatment type, or location.

Most clinical trials are enrolling patients at more than one site within a country or around the world. Listings in the databases mentioned above include information for all of the locations where a trial is being conducted, along with contact information for a trial coordinator at each site. If you enroll in a trial, you must be seen for all visits required by the trial at the site where you originally enrolled.



As you are searching for a trial be sure to think about whether you will be able to manage any necessary travel.

Chordoma Foundation Patient Navigators are available to assist chordoma patients and caregivers with information on clinical trials. They can help answer questions, provide you with information on current trials, and connect you with helpful resources to help you make a decision about participating in a trial.

Contact a Patient Navigator by visiting **chordoma.org/request-help** or by calling (888) 502-6109.

Determining eligibility

All trials have inclusion and exclusion criteria, which determine who is eligible to participate in the trial. You must meet all inclusion criteria to be eligible, but if any of the exclusion criteria apply, you will not be allowed to participate.

Inclusion criteria for a trial might include:

- having a specific type of cancer
- having cancer in a certain stage, such as recurrent, advanced, or metastatic
- having received or not received certain treatments in the past
- your medical history
- demographic factors such as age or gender
- genetic markers
- your current health status

Exclusion criteria for a trial might include:

- systemic therapy or radiation treatments within a certain time period before beginning the trial (usually about a month)
- known allergies
- active infections
- autoimmune disease

These criteria help doctors ensure they are studying the treatment in the population they expect to use it for once it is approved. They help protect the safety of trial participants by excluding patients with certain health risks. The criteria also reduce differences among participants, which allows researchers to be more certain that any effects they see are because of the treatment itself. Eligibility criteria for individual trials can be found on listings in clinical trial databases such as **ClinicalTrials.gov**.

Enrolling in a trial

If you choose to participate in a trial, you will go through a screening process to ensure that you are eligible to enroll. The doctors at the trial site will need copies of your medical records to help with this process. They will meet with you to discuss your medical history and the details of the trial. At this appointment, it will be important to:



Learn about the trial.
The coordinator and doctor at the trial site will talk with you about how often you must be seen at the clinic during the trial, and what will happen at those visits. You should make sure you know the purpose of the trial, potential risks and benefits, associated costs, and your rights regarding privacy and withdrawing from the trial.



Ask about possible side effects.
Knowing what types of side effects to look out for can help you participate in the trial more effectively and help you understand when you need to contact your doctor. Be sure to find out how to get in touch with the trial team between clinic visits, in case you have concerns or are experiencing side effects.



Come with questions and take notes.
The information you receive from the trial site is important, and it can be overwhelming to remember it all. If you have any questions, don't hesitate to ask the trial team. Write down your questions before your appointment and take notes on the answers so you do not forget anything. It can be helpful to bring a friend or family member to these appointments to help you ask questions and take notes.



For a list of questions that can help you think about what you might want to ask visit **chordoma.org/treatment-questions**



Informed consent

Before you enroll, the trial team must review all aspects of the trial with you and document your consent to participate in the trial. This process is called informed consent, and it is a very important part of enrollment. As part of informed consent, a doctor or trial coordinator will talk with you about the purpose of the trial, how long the trial will last, the treatment being studied, risks and benefits, and any costs that are your responsibility. An essential part of informed consent is a clear description of your rights as a patient, including the right to leave the trial at any time. It is also your right to ask as many questions as you need to during this process.

All of this information will also be given to you in writing, and you will be asked to sign a document stating that the trial has been explained to you, you were given time to ask questions, you understand your rights, and you agree to participate in the trial. Informed consent is legally required for your participation in a clinical trial and is meant to protect your safety and your rights as a clinical trial participant. Your consent is non-binding, which means that even after you sign the document you can change your mind at any time and you will be allowed to withdraw your consent and leave the trial.

How we can help

The Chordoma Foundation Patient Navigation Service is here to help. Our dedicated Patient Navigators are available to:

- Answer questions about chordoma
- Provide information on treatment guidelines, experienced physicians, and treatment centers
- Identify and provide information on clinical trials open to chordoma patients, and other options for systemic therapy
- Give referrals to programs and organizations that offer travel and lodging assistance, co-pay relief, and other benefits
- Support requests and appeals to insurance companies
- Connect you with other patients and caregivers in the chordoma community



Learn more about our Patient Navigation Service at **chordoma.org/patient-navigation**

Learn more

Visit the Chordoma Foundation at **chordoma.org** for more information on chordoma, including research updates, the latest news on treatments, and ways to get involved.

Get help from a Chordoma Foundation Patient Navigator at **chordoma.org/request-help** or by calling (888) 502-6109.

Connect with other patients and caregivers through the Chordoma Connections online community at **community.chordoma.org**.

Important note about this publication

The content herein was developed by the Chordoma Foundation in consultation with members of our Medical Advisory Board. It is not meant to take the place of medical advice. You should always talk with your doctors about treatment options and decisions.

We would like to the thank the members of our Medical Advisory Board for providing their expertise in contributing to the content and review of our educational materials.

Shreyas Patel, MD, Chair
Medical oncology
MD Anderson Cancer Center

Greg Cote, MD, PhD
Medical oncology
Massachusetts General Hospital

Tom DeLaney, MD
Radiation oncology
Massachusetts General Hospital

Paul Gardner, MD
Skull base surgery
University of Pittsburgh Medical Center

Hans Gelderblom, MD, PhD
Medical oncology
Leiden University Medical Center

Ziya Gokaslan, MD
Spine surgery
Rhode Island Hospital

Mrinal Gounder, MD
Medical oncology
Memorial Sloan Kettering Cancer Center

Christopher Heery, MD
Medical oncology
Bavarian Nordic

Fran Hornicek, MD, PhD
Spine surgery
University of California Los Angeles

Chandra Sen, MD
Skull base surgery
New York University Langone Medical Center

Silvia Stacchiotti, MD
Medical oncology
Istituto Nazionale dei Tumori, Milan

Katherine Thornton, MD
Medical oncology
Dana-Farber Cancer Institute

Josh Yamada, MD
Radiation oncology
Memorial Sloan Kettering Cancer Center



PO Box 2127 Durham, NC 27702
(919) 809-6779 • chordoma.org



©2019 Chordoma Foundation. All rights reserved.