



Information about cancer clinical trials

VCRCC
Viertel Centre
for Research in Cancer Control

QCOG
Queensland Co-operative
Oncology Group

Cancer Council Queensland is a not-for-profit, non-government organisation that provides information and support free of charge for people with cancer and their families and friends throughout Queensland. These services are made possible through the generous donations of Queenslanders and we thank them for their continued support.

If you would like to know more about the information and support services provided by Cancer Council Queensland, call our Helpline on 13 11 20 (toll free) Monday to Friday, 8am to 8pm.

Some photos courtesy of Queensland Health.

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Introduction

You may find this booklet useful if you have had cancer treatment or you want to learn how cancer treatments are developed. This booklet has been produced to explain what clinical trials are, how they differ from normal treatments, and why they are of value in the treatment process.

Participation in clinical trials is voluntary. This booklet can help you decide whether taking part in a clinical trial is the right decision for you.

This information may be helpful in deciding what questions to ask the doctor or health team involved in your care and help you to identify which kind of trial is likely to be appropriate.

Cancer Council Queensland and the Queensland Cooperative Oncology Group strongly recommend that you discuss any clinical trials for which you may be eligible with your cancer specialist.

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What are clinical trials?

Clinical trials are research studies in which patients and researchers help find ways to improve health care. Each clinical trial tries to answer scientific questions and to find better ways to prevent, diagnose, or treat cancer.

Treatment

Clinical trials test many types of new treatments, such as:

- New drugs, including chemotherapy, hormones, targeted therapy and immunotherapy.
- New techniques of radiation therapy.
- New surgical approaches.
- New palliative and supportive care techniques.
- New ways to combine treatments.
- New methods of treatment such as gene therapy, vaccines and antibodies.
- Counselling and psychological support.
- New alternative therapies.

Prevention

Some clinical trials look for the best way to prevent cancer in people who have never had cancer, or to prevent cancer from returning or prevent a new cancer occurring in people who have already had cancer. These prevention studies can examine:

- Behaviour (e.g., exercising more or quitting smoking).
- Chemoprevention such as medicines, vitamins, minerals or other supplements that may lower the risk of a certain type of cancer.

Why are clinical trials important?

Screening

Screening or early detection trials test the best way to find cancer, especially in its early stages. Examples of screening include mammograms, pap smears and skin checks.

A clinical trial is one of the final stages of a long and careful cancer research process. The search for new treatments begins in the laboratory, where scientists first develop and test new ideas. To reach the clinical trial stage, there has been a lengthy series of scientific experiments and promising evidence of therapeutic benefit before the treatment can be given to people with cancer. Thus, the clinical trial represents the leap from the laboratory experiments to the establishment of a standard treatment for cancer and is an essential step in the development of improved treatments for cancer.



The Wesley Research Institute is the Brisbane coordinating centre for a large multicentre study of patients with invasive breast cancer.

Initial results from 51 surgeons who operated on over 1000 patients showed that patients who received sentinel node based management for their surgery for smaller breast cancers responded much better in terms of their recovery from surgery, with less arm swelling and less loss of arm function, when compared to the usual surgery technique of routine axillary clearance. As a direct consequence of this study surgeons are now able to offer many patients with smaller tumours sentinel node based surgical management with the added assurance that the technique has been found to be safe and effective in an Australian clinical trial. Another clinical trial is now under way to test safety in women with larger and multi-focal breast cancers.

Clinical trials are the best way to improve the treatment and management of patients with cancer. Patients who participate in trials receive up-to-date care and depending on the trial will receive the best available standard treatment for their cancer or the new treatment being tested.

Of course, there is no guarantee that standard treatment or a new treatment being tested will produce good results. New treatments also may have unknown risks. However, if a new treatment proves effective or more effective than standard treatment, trial patients who receive it may be among the first to benefit. Some patients receive only standard treatment and benefit from it as well. In the past, clinical trials were sometimes seen as a last resort for people who had no other treatment choices. Today, people may have the option of receiving their first cancer treatment in a clinical trial.

Clinical trials contribute to knowledge and progress against cancer. If a new treatment proves effective in a trial, it may become a new standard treatment that can help many patients. Many of today's most effective standard treatments are based on previous trial results. In Queensland less than 2% of adults with cancer participate in clinical trials. When more people participate in clinical trial research, the results from clinical trials can be obtained more quickly and therefore save more lives. Because of progress made through clinical trials, many people treated for cancer are now living longer.

Types of clinical trials

Cancer clinical trials can involve a variety of different treatment types including chemotherapy drugs or medicine, radiotherapy (radiation), surgery, immunotherapy (vaccines), hormone therapy and other therapies (including alternative medicines).

The trial may involve one or more of these treatments at a given time, or a combination of these treatments on a given schedule. Most of the following discussion deals with drug treatments as a large number of cancer clinical trials involve the use of anti-cancer medicines.

Most clinical research that involves the testing of a new drug progresses in an orderly series of steps, called phases. This allows researchers to ask and answer questions in a way that results in reliable information about the drug and protects the patients. Clinical trials are usually classified into one of four phases:

Phase I Trials: Phase I trials are the first step in testing a new treatment in humans and they determine the safety of the proposed treatment. In these studies, researchers try to find out how the treatment can be given safely (e.g. best dose). In the Phase I trial, a small number of patients receive a dose of the treatment and are watched closely for any harmful side effects. The dose is slowly increased in a different group of patients until significant side effects start to appear, this enables the researchers to establish best dose for the new treatment.

Because less is known about the possible risks and benefits in Phase I trials, only a limited number of patients who would not be helped by other known treatments are able to participate. Successful Phase I trials are vital as they allow the treatment to go on and be tested for its value as an anti-cancer agent.

Phase II Trials: A phase II trial continues to test the safety of the drug and begins to evaluate effectiveness or how well the new drug works. Phase II studies usually focus on a particular type of cancer. The same treatment may be effective in two completely different types of cancers. In most Phase II trials every patient has the opportunity to receive the new experimental treatment for their cancer. The information gathered in the Phase II trial will determine whether the treatment proceeds to Phase III trials.

Phase III Trials: Phase III trials involve the comparison of a new treatment proven to be effective (from the Phase II trial) at a safe dose (from the Phase I trial) to the standard cancer treatment. New treatments can include new drugs as well as new methods for surgery, delivery of radiation therapy or combinations of these treatments. These studies usually look at mortality rates and side effects in both treatment groups. Phase III clinical trials require a large number of patients to be recruited in order to measure any differences between the tested treatments. Phase III trials are usually randomised trials. These studies can have patients participating from many different countries.

Phase IV Trials: Phase IV trials are conducted after a treatment has been approved as standard. These trials are usually run by pharmaceutical companies to more fully understand how their treatment compares to other treatments in the community, to monitor the long term effects of the treatment or to monitor any usage for conditions other than the approved medical condition. Participation in Phase IV clinical trials is not high in Queensland.

Randomised Trials: A randomised controlled clinical trial is a clinical trial where the treatments are allocated by chance. This is usually done using a computer which assigns you to either the new treatment group or the standard treatment group. Neither you nor your doctor will know in advance which treatment you will receive. This method ensures that certain factors and human choices or biases, do not affect the trial results and make them less reliable. When treatment groups are directly compared with each other, it becomes easier to establish which treatment works and which has the most side effects. Randomisation also helps ensure that the findings really result from the treatment, and not from something else. Phase III trials and some Phase II trials are randomised controlled studies.

Some studies add a further level of impartiality by making both the patient and the research team “blind” to the treatment assigned. This means that neither you nor your doctors will know which treatment you are receiving. Only researchers at a central office for the clinical trial will know. A doctor can find out your treatment if needed by talking to central office staff. This blinding process reduces possible bias in reporting the side effects and effectiveness of the treatments.

The clinical trial protocol

Every trial that is conducted must follow a set of rules or strict guidelines called a protocol.

The purpose of the protocol is to:

- Set out the purpose of the trial.
- Describe which patients are eligible to participate in the trial.
- Describe how many are eligible to participate in the trial.
- Describe the trial treatment.
- Describe the required medical tests.
- Describe what information will be gathered.
- State the regulations that must be followed to ensure the safety of the patient.

All researchers and institutions involved in running a particular clinical trial must follow the same protocol exactly, otherwise their results cannot be compared to each other and their research will not hold up to the scrutiny of the authorities that approve new treatments. This is particularly important in Phase III trials. Some clinical trial protocols may also include a study of the psychological or financial effects of the cancer and its treatment on the patients, their families and their carers.

A study of patients with melanoma, the most serious form of skin cancer, was undertaken at Princess Alexandra Hospital in Brisbane together with fifteen other cancer centres in Australia, New Zealand and overseas.



Results from this study showed that radiation therapy following lymph node surgery can dramatically reduce the recurrence of melanoma in lymph nodes compared to surgery alone.

What does a clinical trial involve?

When you participate in a clinical trial you will be involved with the clinical trial or research team. This team consists of doctors, nurses, study co-ordinators and other health care professionals.

They will provide your care, monitor your health carefully and give you specific instructions about the trial, ask you a number of questions about your cancer and your treatment every time you see them.

Participating in a trial may mean that you might have more tests and doctor visits than you would if you were not in the trial. Team members also may continue to stay in contact with you after the trial ends. To make the trial results as reliable as possible, it is important for participants to follow the research team's instructions. That means going to all doctor visits and having the required tests, taking medicines on time and completing logs and questionnaires.

Some clinical trials require the completion of "quality of life" questionnaires. These questionnaires ask you to describe how you are feeling generally, how the treatment is affecting you and your overall quality of life. This information is important for the researchers to collect as this will be used to measure how you feel about the treatment as well as revealing information that may not have been discussed with your doctor.

Who can participate in clinical trials?

Clinical trials are designed to enrol people who are alike in certain ways, depending on the trial's purpose. Every protocol clearly states the characteristics that people should have to join that trial. These are called eligibility criteria and are usually relatively standard. They may include type of cancer, age, gender, general health and cancer risk factors.

Eligibility criteria are an important feature of the clinical trial system for patients. They help produce results we can trust, and after those results are known, the information can help doctors assess the suitability of the treatment for particular patients. For example, a new drug may work for people with one type of risk factor but not for another, or it may work better for men than for women.

Eligibility criteria also help protect you while you are a participant in the trial. They help make sure that if you are at increased risk of being harmed by some aspect of the trial then you will not be allowed to participate.

Due to the very low number of children that are diagnosed with cancer it is most likely that children will be offered their treatment using a clinical trial protocol.

Why participate in clinical trials?

The purpose of cancer clinical trials is to discover a better treatment for people with cancer and to come closer to finding a cure for a particular type of cancer. Most cancers have a range of treatments that are offered to patients depending upon the type and severity of the particular cancer.

Clinical trials are always trying to raise the level of treatment success. Hundreds of thousands of people all over the world have taken part in clinical trials, resulting in safer and more effective cancer treatments for most types of cancers.

Reasons for taking part in a clinical trial may include one or more of the following:

- The patient will have the first chance to benefit from the treatment if the results of the trial show an improvement from the standard treatment.
- The treatment that is received may be more successful than the standard treatment, or have less risks or side effects than the standard treatment.
- The treatment that is received may not yet be publicly available due to health policy or prohibitive cost.
- The team that is conducting the trial monitors patient care even more rigorously than the normal level of careful and regular monitoring.
- The patient will be contributing to a worldwide effort to combat cancer.

Clinical trial ethics

In Australia, clinical trials cannot legally commence in any hospital unless they have been thoroughly examined and approved by hospital committees known as Human Research Ethics Committees.

These committees review every application for a new clinical trial in their hospital and ensure that trials do not unnecessarily put the patients participating in a trial at risk. While there is never certainty that the protocol treatment will be beneficial, it must be ensured that no protocol treatment should ever be harmful.

The ethics committee is responsible for making sure that the clinical trial is conducted in a professional and scientific manner. Information about the clinical trial that the ethics committee will examine include:

- The usefulness of the trial.
- The likely benefits of the trial compared to its risks, including side effects.
- The competence of the hospital and staff to fulfil the requirements of the trial.
- The information that the patients receive is accurate, understandable and sufficient to make an informed decision.
- The manner by which patients are recruited into the trial.
- The impact on the quality of life of patients.
- The protection of patients and confidentiality of patient information.
- The qualifications of the researchers conducting the trial.

The members of an ethics committee are always independent of the clinical trial researchers and include a variety of individuals from the medical profession, the scientific community, professional organisations and the general community. Ethics committees must conform to the guidelines for safe and ethical conduct stipulated by the National Health and Medical Research Council. This council is the national research funding and development body representing the views of the government, the health industry, the research community and consumer advocate groups.

The approval of the ethics committee is always sought whenever a change in the trial is proposed, regardless of whether it is in the treatment, the documentation, or the personnel. The committee will evaluate the need for the change and the nature of the change, and, if approved, may set further conditions for the ongoing conduct of the clinical trial.

The conduct of the clinical trial may also be subject to monitoring by outside agencies such as drug companies, research institutions and external auditing organisations. These bodies ensure that the clinical trial protocol is conducted in an ethical, scientific and professional manner in order to protect clinical trial participants and to confirm the particular clinical trial as valuable clinical research.



An active clinical trial program is underway in Townsville Hospital to recruit patients for a range of national and international clinical trials to examine improvements in the treatment of leukaemia, lymphoma, myeloma and other solid tumours including cancers of the breast, lung, prostate, melanoma and bowel.

"It is very rewarding to be able to participate in many of these international studies so that our patients receive the same treatment as patients from other developed countries" commented Dr Sabesan from Townsville Cancer Centre, Townsville Hospital. "The provision of high standards of clinical care to our patients is a priority and participation in a clinical trial ensures that these standards are maintained or exceeded".

Informed consent and your rights

Participation in a clinical trial may involve some risks and side effects. Any possible risks and side effects will be explained to you before you consent to take part in the trial.

Informed consent is the legal term for the requirement that a patient involved in a clinical trial must be informed of the nature, risks and probable outcome of the research before deciding whether or not to participate.

If you are considering participating in a clinical trial, the relevant information regarding the clinical trial that has been explained to you will also be provided to you on a patient information sheet called the informed consent form.

If you wish to proceed with the clinical trial you will be asked to sign this document to state that you have been informed about and consent to the protocol. The consent form includes information about the treatments that you may receive, the tests that you may have, possible benefits and possible risks and side effects. It also explains your rights and responsibilities as a trial participant and aims to address most questions that you may have about the clinical trial.

The following questions may be useful when discussing the trial with your doctor.

- What treatment/s are being tested and why?
- What are my chances of benefit from taking part in this trial?
- What are the risks to me?
- What tests are involved?
- Will there be any side effects?
- Are the side effects able to be treated?
- How many other people are on the trial?
- How long does the trial last?
- Do I need to go into hospital for the treatment?
- Will I need to take extra time off work?

- How will the treatment affect my daily life?
- Who can I contact if I have a problem?
- How will my identity be protected while I am in the trial?
- Who will have access to my information?
- What will happen with the results of the trial?

Only when you are completely satisfied that you have enough information to make an informed decision can you sign the consent form. You should not feel pressured to take part in a trial, neither should you be rushed into making any decisions that affect your health or treatment. If a person aged less than 18 years is invited to participate in a clinical trial the informed consent must be completed by their legal guardian.

After talking to your doctor about the clinical trial, you will want to weigh up all the information you have. You may find it helpful to discuss it with your family and friends or seek other sources of information or a second opinion. It is important for you to make the right decision about your treatment. It is your choice whether or not you join the trial. If you do join a clinical trial, you have the right to withdraw at any time. Doing so will not affect your relationship with your doctor, or the continued treatment of your cancer.

You will not be invited to join a clinical trial if there is an existing universal cure for your type of cancer. If your cancer does not respond to treatment or there are side effects that you find unacceptable while you are in a clinical trial, the treatment will be stopped. Your doctor will then discuss with you other treatment options.

In summary, if you are interested in participating in a clinical trial, you need to know that you have several important rights:

- Informed consent: the right to know all you need to make a thoughtful decision about joining a trial.
- Changing your mind: the right to withdraw from the trial at any time.
- Medical monitoring: the right to have your health watched throughout the trial.
- Removal from harm: the right to be taken off the trial if doctors learn that continuing may harm you.

Costs of clinical trials to patients

There is no extra cost associated with patient participation in clinical trials. All trials involve a number of tests or examinations to see if that treatment is working or not and these are part of standard care.

The costs of the study drug, extra tests or examinations that clinical trials require according to the trial protocol are met by the organisation that produced the clinical trial protocol.

This organisation, whether it is a drug company, a group of professional researchers or a research institution, may also contribute funds to the hospital for the extra clinical and administrative workload required to follow the trial protocol. In some instances, trials may have a small budget to reimburse patient travel costs and out of pocket expenses. You will need to ask your doctor if this applies to your trial.



Patients at the Princess Alexandra Hospital contributed to an Australian study in multiple myeloma (a cancer of the bone marrow).

Following an autologous stem cell transplant patients were randomly assigned to receive daily low-dose thalidomide with steroids for one year, or just steroids alone. Those in the thalidomide arm were more likely to have better disease control and to survive for longer. As a result of this study, it is now regular practice to consider thalidomide therapy in suitable patients with myeloma after a stem cell transplant.

Finding a clinical trial

Queensland's cancer specialists have a very good record in contributing to state-based, national and international clinical trials. All of the larger hospitals, both public and private and some of the smaller hospitals are involved in the conduct of clinical trials.

Participation in clinical trials is considered an indication of the provision of high quality care, as the clinicians are up to date with new treatments. Most clinical trials conducted in Queensland hospitals are multi-centre and international.

There is a large amount of information about cancer and clinical trials on the internet and there are many websites that describe clinical trials for the treatment of cancer. Any information that you obtain from the internet about cancer and clinical trials should always be discussed with your doctor.

To find the clinical trial most appropriate for you, a discussion with your doctor is always advised. They may be able to refer you to one of the centres where clinical trials are routine practice and where wide ranges of clinical trials are available.



The Royal Brisbane and Women's Hospital participated in a large scale international study to compare different treatments used as adjuvant therapy in female patients with breast cancer.

Over 8000 patients were recruited worldwide with 32 patients from Queensland. The results from this study showed that hormone treatment can reduce the re-occurrence of breast cancer and help to improve survival.

Information on the internet

The internet can be a useful source of information, although not all websites provide reliable, accurate or appropriate information for the cancer patient.

The websites listed below are good sources of reliable information. However, Cancer Council Queensland is not responsible for their content.

General cancer websites

- Cancer Council Queensland: www.cancerqld.org.au
- Cancer Council Australia: www.cancer.org.au
- CancerBACUP: www.cancerbacup.org.uk
- National Cancer Institute: www.cancer.gov/cancer_information
- American Cancer Society: www.cancer.org

Clinical trials websites

- Australian New Zealand Clinical Trials Registry: www.anzctr.org.au
- National Health and Medical Research Council Clinical Trials Centre: www.ctc.usyd.edu.au
- US National Cancer Institute: www.cancer.gov/clinicaltrials
- US Coalition of National Cancer Co-operative Groups: www.cancertrialshelp.org
- Database of trials featuring a 'MetaRegister' of randomised clinical trials: www.controlled-trials.com

Support for people affected by cancer

Cancer Council Helpline

Cancer Council Helpline is a state-wide telephone information and support service available to all Queenslanders affected by cancer. Staffed by trained professionals, this confidential service can provide support to those affected by cancer along with information on a range of cancer-related issues including cancer, cancer treatments, cancer prevention and early detection and services available in the community.

The Helpline provides a range of support and educational materials aimed at assisting those affected by cancer and educating the community about all aspects of cancer, including diagnosis, treatment and clinical trials.

Cancer Council Helpline is provided free by Cancer Council Queensland and can be contacted on 13 11 20 (toll free) Monday to Friday, 8am to 8pm.

Cancer Counselling Service

The Cancer Counselling Service is a free and confidential counselling service for people with cancer and those close to them. Counselling is available by telephone to anyone in Queensland affected by cancer.

Face-to-face counselling is also available in selected regional offices. Contact our Helpline on 13 11 20 for further information.

The counselling team is professionally trained and experienced in helping people with cancer. The service is provided free by Cancer Council Queensland and operates by appointment from Monday to Friday.

Glossary

Adjuvant therapy: Treatment that is added to increase the effectiveness of a primary treatment. In cancer, adjuvant treatment often refers to chemotherapy, hormonal or radiation therapy after surgery, which is aimed at killing any remaining cancer cells.

Advanced cancer: Cancer that has metastasised (spread to a part of the body away from the original or primary cancer) and is more difficult to treat.

Benign: A tumour that is non-malignant, that is, non-cancerous.

Cancer: A general term for abnormal cell growth and its uncontrolled spread. A collection of abnormal cells which display uncontrolled growth is called a malignant tumour.

Case Report Forms: Electronic or paper survey form that is used to record all patient information and results from the clinical trial. Sometimes referred to as CRF's.

Chemotherapy: Treatment of disease with chemicals.

Control group: The group of patients that receive the standard proven treatment in a randomised trial.

Double-blind trial: A trial in which neither the patient nor their doctor knows what treatment the patient is receiving, to reduce bias.

Haematologist: A doctor who is a specialist in the diseases of the blood. A clinical haematologist is a specialist who treats cancers of the blood such as leukaemia and lymphoma.

Hormone therapy: Medical treatment using hormones.

Immunotherapy: Treatment with therapeutic antibodies which stimulate a person's immune system to attack malignant tumour cells.

Malignant: Abnormal cell growth that can spread, endangering health. All cancers are malignant.

Medical oncologist: A specialist doctor skilled in the treatment of cancer and the use of chemotherapy.

Metastasis: The spread of cancer to an area beyond the original or primary site.

Oncology: The study, diagnosis and treatment of cancer.

Placebo: A tablet, capsule or injection that contains a harmless substance that appears to be the same as the medicine being tested in a controlled trial. A placebo may be compared with a new drug when no one knows if any drug or treatment will be effective.

Palliative care: Any form of medical care or treatment which reduces the severity of disease symptoms and helps to improve quality of life.

Primary cancer: The original cancer. Cells from the primary cancer may break away and be carried to other parts of the body where secondary cancers may form.

Quality of life: How a person is feeling and doing. Quality of life is often affected by cancer and its treatments.

Radiation oncologist: A specialist doctor skilled in the treatment of cancer and the use of radiation therapy.

Radiation therapy: The use of controlled high-energy radiation such as x-rays and/or gamma rays to destroy cancer cells, sometimes called radiotherapy or x-ray therapy.

Stage: Describes the extent of a cancer and takes into account the size of the tumour, involvement of lymph nodes and whether it has spread to other organs in the body.

Supportive care: Improves the comfort and quality of life for people with cancer. Examples of supportive care include self-help, information, psychological support, symptom control, rehabilitation, social or spiritual support, palliative care.

Surgeon: A specialist doctor skilled with the removal of malignant tumours using surgical techniques.

Targeted therapy: A specialised form of chemotherapy that uses drugs or other substances, such as monoclonal antibodies, to identify and attack specific cancer cells without harming normal cells.

Tumour: A new or abnormal growth of tissue on or in the body.



Cancer Council
Helpline
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**For information and support call
Monday to Friday, 8am – 8pm**

www.cancerqld.org.au