

Terms

Radiolabeled antibodies

Monoclonal antibodies that have had a radioactive isotope attached to them in a process called radiolabeling.

Radioprotector

A type of drug that protects normal tissues in the area being treated.

Radioresistant

A term used to describe a tumor that does not respond well to radiation therapy.

Radiosensitizer

A type of drug that can make a tumor respond better to radiation therapy.

Radiotherapy

Also called radiation therapy or irradiation, it is the careful use of various forms of radiation to treat cancer and other diseases.

Simulation

The process of planning radiation therapy to allow the radiation to be delivered to the intended location.

Stereotactic radiotherapy

A technique that allows your radiation oncologist to precisely focus beams of radiation to destroy certain types of tumors. It is sometimes called radiosurgery.

Surgical oncologist

A cancer doctor who specializes in operating to cut out cancerous tumors.

Systemic radiation therapy

The use of radioactive isotopes that can travel throughout the body to treat certain cancers.

Treatment plan

A radiation oncologist's prescription describing how a patient should be treated with radiation therapy. The radiation oncology team uses special software to maximize radiation to the tumor while sparing healthy tissue.

Tumor

An abnormal lump or mass of tissue.

Adjuvant therapy

A treatment that is given in addition to the primary treatment to enhance its effectiveness and reduce the chance of the tumor recurring.

Applicator

A device used to hold a radioactive source in place during brachytherapy.

Beam films

Another term for port films, beam films are pictures of the position of the radiation beams used to treat cancer. They are used to verify the position of the beams and confirm that treatment is delivered to the right place.

Biologic therapy

Also called immunotherapy, biologic therapy works with your immune system to fight cancer. Biologic therapy is like chemotherapy. The difference is that chemotherapy attacks the cancer directly and biologic therapy helps your immune system fight the disease better.

Blocks

Pieces of metal alloy that can be used to shape the radiation beam.

Boost

An additional dose of radiation that is given after an initial course of radiation to enhance tumor control.

Brachytherapy or implant

Internal radiation therapy that involves placing radioactive sources inside or adjacent to the tumor.

Cancer

A group of diseases in which abnormal cells divide uncontrollably, forming a tumor or mass.

Catheter

A tube inserted into the body that can be used to deliver radiation during brachytherapy.

Chemotherapy

Medications given to kill or slow the growth of cancer cells.

Clinical trials

Studies that test new cancer therapies.

CT or CAT scan

A computer assisted tomography scan is an imaging study that uses X-rays and a computer to produce detailed pictures of the body.

High-dose-rate remote afterloading or HDR

A brachytherapy treatment delivering radiation with a small, intense radioactive source on the tip of a flexible wire inserted into hollow tubes placed into or near a tumor by a radiation oncologist.

Hormone therapy

Natural hormones, such as estrogen and testosterone, help some tumors grow. To stop their growth, doctors sometimes prescribe hormone therapy to reduce the amount of hormones produced by the body in order to stop the growth of the cancer.

Hyperfractionated radiation therapy

A type of radiation therapy in which the radiation doses are divided into smaller amounts and patients undergo treatment more than once a day.

Hypofractionated radiation therapy

A type of radiation therapy in which patients undergo one or just a few treatments.

Image guided radiation therapy or IGRT

A radiation treatment guided by imaging equipment, such as CT, ultrasound or X-rays, taken in the treatment room just before radiation is given. During IGRT, doctors compare these images to see if the treatment needs to be changed.

Immobilization device

A device that is used to help a patient remain in the same position during every treatment.

Immunotherapy

Also called biologic therapy, immunotherapy works with your immune system to fight cancer.

Implant

See *brachytherapy*.

Intensity modulated radiation therapy or IMRT

IMRT is a specialized form of external beam therapy that can help improve how the radiation is shaped to fit your tumor.

Interstitial brachytherapy

A form of seed implant where radioactive sources are placed directly into the tumor (such as the prostate).

Intracavitary brachytherapy

A type of brachytherapy where the radioactive sources are placed into a space where the tumor is located, such as the cervix or windpipe.

Irradiation

The process of treating a patient with radiation therapy.

Linear accelerator or linac

The most common type of machine used to deliver external radiation therapy.

Medical oncologist

A cancer doctor who specializes in giving drugs (called chemotherapy or targeted agents) to kill cancer cells or slow down their growth.

Metastases

Cancer that has spread from one part of the body to another, such as from the breast to the lymph nodes or bones.

Monoclonal antibodies

Monoclonal antibodies target certain cells in the body by attaching themselves to those molecules. This causes some cancer cells to die and makes other cells more likely to be killed by radiation and chemotherapy.

MR or MRI scan

A magnetic resonance imaging scan is an imaging study that uses a magnetic field and a computer to create detailed pictures of the body.

Multileaf collimator or MLC

A part of a linear accelerator that is used to shape the radiation beam.

Neutron beam therapy

A specialized type of external beam radiation therapy using neutrons to treat tumors.

Palliative care or palliation

Treatment that is intended to relieve symptoms, but not cure disease.

PET scan

A positron emission tomography scan is an imaging study using a very small dose of a radioactive tracer attached to a sugar that is injected into the patient. Different tissues (including tumors) use the sugar at different rates, a characteristic that may be detected by the scanner to create an image of the body showing areas of tumor activity.

Proton beam therapy

A specialized type of external beam radiation therapy using protons to treat tumors.

Radiation oncologist

A doctor who specializes in treating cancer and other diseases with radiation therapy.

Radiation therapy

Also called radiotherapy or irradiation, it is the careful use of various forms of radiation to treat cancer and other diseases.

Radioimmunotherapy

The use of radiolabeled antibodies to deliver radiation directly to a tumor.