

Glossary of Terms

Adenoma:

A benign epithelial tumor.

Adjuvant Chemotherapy (ad'ju-vant kee mo-ther'a-pee):

One or more anticancer drugs used in combination with surgery or radiation therapy as part of the treatment of cancer. Adjuvant usually means "in addition to" initial treatment.

Anaplastic/Undifferentiated:

A loss of differentiation of cells and of their orientation to one another; tumors that are anaplastic are usually considered very malignant and aggressive.

Antibody (an'ti-bod-ee):

A protein produced by a plasma cell in the lymphatic system or bone marrow. An antibody binds to the specific antigen that has stimulated the immune system. Once bound, the antigen can be destroyed by other cells of the immune system. See **Immune System**.

Antigen (an'tijen):

A substance, foreign to the body, which stimulates the production of antibodies by the immune system. Antigens include foreign proteins, bacteria, viruses, pollen and other materials.

Aspiration:

The removal of fluid or gases from a cavity by suction; when we "aspirate" something, we place a needle (which is attached to a syringe) into a tissue and draw back on the syringe; cells are thus dislodged from the tissue into the needle and syringe; we can then spread these cells onto a slide so that they can be stained and examined under the microscope.

Benign:

Not dangerous to health; not recurrent or progressive (especially of a tumor).

Biologic Behavior:

Refers to how a tumor is likely to behave (for example, how likely it is to metastasize, where are the common sites of metastasis and how invasive is it at the site where it starts).

Biological Therapy:

Use of biologicals (substances produced by our own cells) or biological response modifiers (substances that affect the patient's defense systems) in the treatment of cancer.

Biopsy:

The removal and examination, usually microscopic, of tissue from the living body, performed to establish a precise diagnosis; when we "biopsy" something, it means that

we remove a piece of tissue to look at under the microscope (we also use the term to refer to the sample we have obtained); a biopsy is crucial in making a diagnosis of cancer.

Blood Count:

Measurement of the number of red cells, white cells and platelets in a sample of blood.

Bone Marrow (mair´oh):

The inner, spongy core of bone that produces blood cells.

Cancer (kan´ser):

A general term for more than 100 diseases characterized by abnormal and uncontrolled growth of cells. The resulting mass, or tumor, can invade and destroy surrounding normal tissues. Cancer cells from the tumor can spread through the blood or lymph fluid to start new cancers in other parts of the body.

Carcinoma:

A malignant growth made of epithelial cells tending to infiltrate the surrounding tissues and give rise to metastasis; epithelial cells "line" body surfaces.

CCOP (Community Clinical Oncology Program):

This program links community physicians with National Cancer Institute clinical research programs, so that more cancer patients can participate in clinical trials in their own communities.

Chemotherapy (kee-mo-ther´a-pee):

Treatment with anticancer drugs.

Clinical Trial:

The systematic investigation of the effects of materials or methods, according to a formal study plan and generally in a group of people with a particular disease or class of diseases. In cancer research, a clinical trial generally refers to the evaluation of treatment methods, such as surgery, drugs or radiation techniques, although methods of prevention, detection or diagnosis also may be the subject of such studies.

Combination Chemotherapy (kee-mo ther´a pee):

Use of two or more anticancer drugs.

Combination Therapy (ther´a-pee):

The use of two or more modes of treatment, such as surgery, radiotherapy, chemotherapy and immunotherapy, in combination, alternately, or together to achieve optimum results against cancer.

Control Group:

In clinical studies, this is a group of patients that receives standard treatment; a treatment or intervention currently being used and that is considered to be of proven effectiveness on the basis of past studies. Results in patients receiving newer treatments may then be

compared to the control group. In cases where no standard treatment yet exists for a particular condition, the control group would receive no treatment. No patient is placed in a control group without treatment if there is a known beneficial treatment for that patient.

Cycle:

Chemotherapy drugs are often given in the same order on the same schedule repeatedly; the term "cycle" refers to the basic plan that gets repeated over and over again; the cycle is different for each chemotherapy protocol.

Cytology:

Refers to the microscopic examination of cells that have been removed from the body (either by aspiration or by other techniques).

Double-Blind:

Characteristic of a controlled experiment in which neither the patient nor the attending physician knows whether the patient is getting one or another drug or dose. In single-blind studies, patients do not know which of several treatments they are receiving, thus preventing personal bias from influencing their reactions and study results. In either case, the treatment can be quickly identified, if necessary, by a special code.

Grading:

Refers to the evaluation of microscopic features of a tumor that allows the pathologist to assign the tumor "a grade"; the grade of a tumor is important because it allows us to predict how aggressive a tumor will be.

Hormone:

Chemical product of the endocrine glands of the body, which, when secreted into body fluids, has a specific effect on other organs.

Immune System:

A complex network of organs, cells and specialized substances distributed throughout the body that defends against foreign invaders that cause infection or disease.

Immunotherapy (im-mew-no-ther´a-pee):

A form of biological therapy. An experimental method of treating cancer, using substances which stimulate the body's immune defense system.

Informed Consent:

The process in which a patient learns about and understands the purpose and aspects of a clinical trial and then agrees to participate. Of course, a patient may decline to participate. This process includes a document defining how much a patient must know about the potential benefits and risks of therapy before being able to agree to undergo it knowledgeably. (Informed consent is required by federally conducted, funded or regulated studies as well as by many state laws.) If a patient signs an informed consent form and enters a trial, he or she is still free to leave the trial at any time, and can receive other available medical care.

Interferon (in-tur-feer'on):

A protein substance produced by white blood cells and other types of cells that have been exposed to certain viruses. In test animals, interferon has shown some activity against tumors. Studies of its usefulness in treating some types of human cancer are underway. One of a number of new agents available as biological therapy.

Investigational New Drug:

A drug allowed by the Food and Drug Administration (FDA) to be used in clinical trials but not approved by the FDA for commercial marketing.

Investigator:

An experienced clinical researcher who prepares a protocol or treatment plan and implements it with patients.

Malignant:

Dangerous to health; characterized by progressive and uncontrolled growth (especially of a tumor).

Margins:

Refers to the edges of the surgical specimen; "clean margins" means that no tumor cells are visible at the edges (sometimes tumors come back despite clean margins); "dirty margins" means that tumor cells are visible at the edges (therefore, tumor cells have been left behind).

Metastasis (me-tas'ta-sis):

The transfer of disease from one part of the body to another. In cancer, metastasis is the migration of cancer cells from the original tumor site through the blood and lymph vessels to produce cancers in other tissues. Metastasis also is the term used for a secondary cancer growing at a distant body site.

Metastatic Cancer (met-a-stat'ik):

Cancer that has spread from its original site to one or more additional body sites.

Metastatic Lesion:

Is the term used for the site of spread.

Monoclonal Antibodies (mon-o-klone'al an'ti-bod-eez):

One of several substances used in biological therapy. These antibodies, all exactly alike, are mass-produced and designed to target cancer cells. Monoclonal antibodies are products of scientific techniques and may prove useful in both cancer diagnosis and treatment.

Multimodality Therapy (mul'ti-mo-dal'i-tee ther'a-pee):

The combined use of more than one method of treatment; for example, surgery and chemotherapy.

Nodule:

A small mass of rounded or irregular shape; a small abnormal knobby bodily protuberance.

Oncologist (on-kol´ojist):

A physician who is a cancer specialist.

Partial Remission:

The shrinking, but not complete disappearance, of a tumor in response to therapy.

PDQ:

A computerized database and website supported by the National Cancer Institute that is available to physicians and patients nationwide. It offers the latest information on standard treatments and ongoing clinical trials for each type and stage of cancer.

Placebo (pla-see´bo):

An inactive substance resembling a medication, given for psychological effect or as a control in evaluating a medicine believed to be active. It is usually a tablet, capsule or injection that contains a harmless substance but appears to be the same as the medicine being tested. A placebo may be compared with a new drug when it isn't yet known if the drug is an effective treatment.

Primary site:

This refers to the site where the tumor started; "the original tumor".

Prognosis:

A forecast as to the probable outcome of an attack of disease; this refers to how we think a patient will do.

Protocol (pro´to-kol):

The outline or plan for use of an experimental procedure or experimental treatment, often in a clinical trial.

Radiation Therapy:

Treatment using X-rays, cobalt-60, radium, neutrons or other types of cell-destroying radiation (also called radiotherapy).

Radiosensitizers (ray´dee-o-sen-si-ty´zers):

Drugs being studied to try to boost the effect of radiation therapy.

Randomized Clinical Trials (ran duh´mized):

A study in which patients with similar traits, such as extent of disease, are chosen or selected by chance to be placed in separate groups that are comparing different treatments. Because irrelevant factors or preferences do not influence the distribution of patients, the treatment groups can be considered comparable and results of the different treatments used in different groups can be compared. (There is no way at the time for the

researchers to know which of the treatments is best. It is the patient's choice to be in a randomized trial or not.) See also "Clinical Trial" above.

Regression (ree-gresh'un):

The state of growing smaller or disappearing; used to describe the shrinkage or disappearance of a cancer.

Remission (ree-mish'un):

The decrease or disappearance of the evidence of a disease; also, the time period during which this occurs.

Risk/Benefit Ratio:

The relation between the risks and benefits of a given treatment or procedure. Institutional Review Boards (IRBs), located where the study is to take place, determine when the risks in a study are reasonable with respect to the potential benefits. It is also up to the patient to decide if it is reasonable for him or her to take part in a study.

Side Effect:

A secondary and usually adverse effect, as from a drug or other treatment. For example, nausea is a side effect of some anticancer drugs.

Sarcoma:

A tumor made up of a substance like the embryonic connective tissue; sarcomas are malignant tumors of connective tissue origin (such as cartilage, bone and muscle).

Stable Disease:

Cancer that is neither decreasing nor increasing in extent or severity.

Staging:

Methods used to establish the extent of a patient's disease.

Standard Treatment:

A treatment or other intervention currently being used and considered to be of proven effectiveness on the basis of past studies.

Study Arm:

Patients in clinical trials are assigned to one part or segment of a study -- a "study arm." One study arm receives a different treatment from another.

Therapeutic (ther'a-pew'tik):

Pertaining to treatment.

Tumor:

An abnormal growth of cells or tissues. Tumors may be benign or malignant.