

Cancer care

The word "cancer" ignites greater fear than perhaps any other word in the medical field, and for good reason. It is second only to heart disease as the leading cause of adult death in the United States.

Cancer, however, is not just one disease. It is a group of more than 100 diseases, which continue to be studied by doctors—specifically, oncologists—in the hope of finding a definitive cure.

Until a cure is found, cancer will continue to be treated using a few different methods. Each will be discussed in this lesson. In addition, this issue will **address causes**, **potential symptoms**, and **methods of diagnosis**.

Most importantly, CNAs must understand the **critical care** that must be provided to residents who have been affected by cancer. Given that the diagnosis and treatment of cancer causes much stress for the resident, offering support is one of the most important measures of care a CNA can provide.

Have a good day of training, and stay tuned for next month's issue of **CNA Training Advisor**, which will cover the H1N1 virus

Share for care

Given its unfortunate prevalence, nearly everyone has some kind of connection to cancer. Engaging in conversation and sharing experiences will help CNAs gain a better understanding of how they can better care for residents. Ask your CNAs to discuss their thoughts and feelings about cancer. Encourage them to ask each other questions and talk about any personal experiences.

PROGRAM PREP

Program time

Approximately 30 minutes

Learning objectives

Participants in this activity will learn about:

- ➤ The causes, symptoms, methods of diagnosis, and treatment of cancer
- ➤ How to provide appropriate care to cancer-affected residents

Preparation

- > Review the material on pp. 2-4
- ➤ Duplicate the **CNA Professor** insert for participants
- ➤ Gather equipment for participants (e.g., an attendance sheet, pencils, etc.)

Method

- Place a copy of CNA Professor and a pencil at each participant's seat
- **2.** Conduct the questionnaire as a pretest or, if participants' reading skills are limited, as an oral posttest
- 3. Present the program material
- 4. Review the questionnaire
- 5. Discuss the answers

Tips and tools for CNA training

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The incidence of cancer increases with age and is generally more common in men than women. Fortunately, today more people who are diagnosed with cancer survive than die from it.

Cancer develops when normal body cells turn into abnormal, malignant cells. Normally, cells divide to produce more cells only when they are needed by the body. When cells become malignant, however, they divide even when the body does not need the new ones. These cells grow into a tissue mass, called a tumor. Some tumors are benign, or noncancerous; others are malignant, or cancerous.

A benign tumor grows slowly, does not spread, and, when removed, does not reoccur. Moles are one example of a benign tumor.

A malignant, or cancerous, tumor usually grows rapidly and, without treatment, leads to death. Malignant tumors can invade and damage nearby tissues and organs and prevent them from performing their normal functions. Cells can also break away from the main tumor and travel to other parts of the body through the bloodstream or lymphatic system and form new tumors. This process of spreading is known as metastasis.

Causes

Since cancer is now perceived as a large group of diseases, researchers believe that there are several causes that can lead to cancer.

There are two major areas of concentration in cancer research. The first area focuses on what causes normal, healthy cells to turn into malignant cells. Secondly, researchers are trying to determine why the immune system fails to destroy these abnormal cells when they develop.

Current research seems to indicate that cancer may be caused by external and internal factors. Certain factors appear to be more likely to lead to specific types of cancer. For example:

- ➤ **Chronic irritation** of a particular part of the body may lead to cancer. Examples include cancer of the lip from tobacco use and cancer of the skin from repeated exposure to the sun.
- ➤ **Heredity** may play a part in the development of cancer. Although malignancies are not inherited, it appears that one may inherit a tendency toward developing cancer.
- Physical characteristics are another factor in the development of cancer. For example, a red-haired Caucasian is more likely to develop melanoma, a type of skin cancer, than other people.

Questions? Comments? Ideas?

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- Certain hormones, drugs, and chemicals may also lead to some types of cancer. We all know that smoking and working with asbestos is linked to lung cancer. People who work with asphalt have a higher rate of skin cancer.
- ➤ **Nutrition** may also play a part in the development of cancer. For example, a diet high in fat is linked to cancer of the colon and breast cancer. Esophageal cancer is linked to a high alcohol intake, and stomach cancer may be the result of a diet low in fruits and vegetables containing vitamin C.
- ➤ A depressed immune system appears to increase the risk of cancer. For example, people whose immune system is damaged because of AIDS have 200 times more malignancies than the general population. Also, people who take medications to depress the immune system to prevent rejection of a transplant are more likely to develop cancer. In some instances, the immune system may be destroying cancer cells in the body, and because the cancer never develops, people are unaware that this is occurring.
- ➤ There is also the possibility that certain **viruses** are related to some cancer types. If this proves to be true, it is hoped that vaccines can be developed to prevent these forms of the disease.
- ➤ Exposure to high doses of **radiation** damages the DNA present in every cell and may lead to cancer. Leukemia is more common among people who are exposed to excess levels of radiation.
- ➤ The **aging process** is another possible explanation as to why cancer becomes more common as people grow older. It may be that aging cells do not accurately reproduce themselves when they divide.

There may be more than one factor involved in the development of a cancerous tumor. For example, prostate cancer is more common in black men than white men. This may be the result of genetic predisposition or the result of a nutritional factor. Most likely, it is a combination of factors.

Symptoms

The symptoms of cancer vary according to the site of the tumor. Often, however, the first step occurs with recognition of one of the warning signs, which include:

- Changes in bowel or bladder habits
- ➤ A sore that does not heal
- Unusual bleeding or discharge
- > Thickening of or a lump in the breast or any other body part
- ➤ Indigestion or difficulty swallowing
- ➤ Obvious change in a wart or mole
- Nagging cough or hoarseness

Methods of diagnosis

Not all forms of cancer produce warning signs. Most tumors do not cause pain until they become large and severe and begin pressing on

another part of the body. For this reason, even though a person's medical history might not suggest evidence of cancer, there are some tests that are routinely performed to identify possible cancers that are in an early, more treatable stage. Those tests include:

- Mammograms
- Breast exams
- Pap smears (Papanicolaou—named for the physician who developed the test)
- Prostate-specific antigen test
- Digital rectal exams
- Manual pelvic examination of the uterus and bladder
- > Fecal occult blood test
- ➤ Blood hemoglobin test (low hemoglobin may indicate cancer of the digestive tract)
- Urinalysis (red blood cells may indicate cancer of the bladder; protein in the urine may indicate cancer of the kidney)

When cancer is suspected, there are several tests that can be performed to determine whether cancer is in fact present, including:

- ➤ Biopsy
- X-ray
- ➤ CT scan
- ➤ MRI

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- ➤ Ultrasound
- ➤ Barium X-ray
- Internal examinations using scopes (i.e., sigmoidoscopy)
- More detailed blood tests
- Injections of radioactive material or dyes into the blood or lymphatic system

Treatment

If cancer is detected, there are three major treatments: surgery, radiation, and chemotherapy. The decision as to what form or forms of treatment are likely to be most effective is determined by the type and size of the tumor, whether it has metastasized (i.e., spread to another organ), and how responsive the tumor is to each form of treatment.

- ➤ **Surgery** is often used to remove the major part of the tumor, followed by radiation and/or chemotherapy to hinder the growth of any remaining cells.
- ➤ The main objective of **radiation** treatment is to damage the membranes of the cancer cells while doing as little damage as possible to the normal cells. Radiation can be administered by the use of a machine that emits radiation rays, by the implantation of radioactive substances, or by IV injection of radioactive substances.

Normal cells recover more quickly from radiation than do cancer cells. Often, the radiation is divided into a series of doses to allow the normal cells an opportunity to recover between treatments. In some cases, radiation may be done before surgery to shrink the tumor so it may be removed more easily.

➤ **Chemotherapy** is the general term for the use of a wide range of drugs. Its goal, in many cases, is to cause the tumor to diminish in size and to slow its metastasis. It may be used in combination with surgery or radiation therapy. It often produces long periods of remission and in some types of cancer, such as childhood leukemia, Hodgkin's disease, and testicular cancer, may result in a cure.

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Chemotherapy can be administered orally, intravenously, intramuscularly, subcutaneously, into a body cavity, into the cerebrospinal fluid, or by arterial infusion. The choice depends on the drug. The dosage is usually divided and given over a period of time to allow bone marrow to recover between doses.

Providing care

Resident care following surgery depends a lot on the extent of the surgery. Caring for residents following radiation and chemotherapy is typically directed to the side effects of those treatments, which commonly include weakness and fatigue, appetite and weight loss, nausea, vomiting, anemia, and diarrhea.

Frequent small meals and fluids, along with medications prescribed for specific symptoms, often diminish these side effects.

Intake, output, and elimination records should be kept so any problems can be identified at an early stage and corrective action can be taken.

The mouth may become dry and have a burning sensation, and swallowing may increase the discomfort. Appropriate mouth care and

dietary changes can help. Proper care also involves watching for any signs of infection, such as fever.

Radiation and chemotherapy are likely to cause hair to fall out. Make sure residents know that although they will lose their hair, it will start to grow back approximately eight weeks after the treatments end.

The skin and other areas of the body should be checked for any signs of bleeding. Early signs of bleeding may appear as tiny or large purplish spots under the skin.

Sleep may become a problem. Relaxation exercises, warm milk, reducing noise, and back rubs can help encourage sleep.

Frequent observation and communication with residents can help determine the level of pain or discomfort each resident may be experiencing. The pain may be related to the cancer or the treatments. In either case, relieving the pain will not only make the resident feel better, it will allow him or her to respond better as well.

Remember that the most consistent and significant care CNAs can provide is support. It's important to listen to the needs of the resident, acknowledge any concerns, and make the best effort to improve care.

Breast cancer

Surgery is often the treatment of choice when a tumor is localized (i.e., has not spread to other areas of the body) in the breast. Given that a portion or the entire breast may need to be removed, this can be a very traumatic procedure. In addition to eradicating the tumor, the surgeon is likely to remove one or more lymph nodes from under the arm to test for the presence of cancer cells. The presence or absence of malignant cells in the lymph nodes will assist in developing the postoperative treatment plan.

Possible breast cancer surgical procedures include a lumpectomy and partial, single, modified radical, and radical mastectomies.

A lumpectomy involves the removal of the cancerous area, as well as a surrounding margin of normal tissue. It is the least disfiguring form of surgery and helps preserve the shape and form of the breast. The majority of women who have early-stage breast cancers are excellent candidates for a lumpectomy. After a

lumpectomy, a six- to eight-week course of radiation therapy may be recommended.

A partial mastectomy removes more breast tissue than a lumpectomy. As with a lumpectomy, lymph nodes are also removed and checked.

A simple mastectomy is most frequently required to prevent additional tumors from developing and when cancer cells have not spread to the lymph nodes. This type of surgery involves removing the entire breast but leaving the lymph nodes intact.

A modified radical mastectomy removes all of the breast and lymph nodes, but the chest muscles are left intact.

Radical mastectomies, which involve removing the entire breast, the underarm lymph nodes, and the chest wall muscles under the breast, are rarely performed today because the modified radical mastectomy has proven to be just as effective and much less disfiguring.

Editorial Board



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| Mark the correct response. | | | | | | |
|----------------------------|---|-------------------|---|--|--|--|
| Name: | | Date: | | | | |
| 1. | The incidence of cancer a. increases with age b. decreases with age c. is more common in men than women d. both a & c A malignant tumor usually grows rapidly. a. True b. False | 6. 7. | All forms of cancer produce warning signs. a. True b. False Which of the following classifies as a cancer detection test? a. Mammograms b. Digital rectal exams c. Both a & b d. None of the above | | | |
| 3. | The spread of cancer cells from one part of the body to another is called a. acities b. metastasis c. interstitial movement d. depressed immunity | 8. | Radiation treatment is often divided into a series of doses to allow the normal cells an opportunity to recover between treatments. a. True b. False | | | |
| 4. | Which of the following is not a perceived cause of cancer? a. Chronic irritation b. Food allergies c. Heredity | 9 . 10. | Chemotherapy may not be used in combination with surgery or radiation. a. True b. False The least disfiguring type of breast cancer surgery is: | | | |
| 5. | d. Hormones, drugs, and chemicalsWhich of the following is not a symptom, or warning sign, of cancer?a. Aching bonesb. Change in bowel or bladder habits | | a. Radical mastectomyb. Simple mastectomyc. Partial mastectomyd. Lumpectomy | | | |

c. Unusual bleeding or discharged. Obvious change in a wart or mole