

# Cancer

Business, Management



Name: Course: Lecturer: Date: Cancer Introduction Cancer has become one of the most common yet fatal diseases in the world. It is the leading cause of death in developed countries (Jemal et al.

69). It affects people of all ages, gender, and races. There are many types of cancer, and the most common types include leukemia, lung, prostate, breast, and cervical cancers. A person can also develop cancer of the skin, colon, and bone. Cancer affects men and women differently. Worldwide, the most common types of cancer among men are prostate, lung, stomach, and colorectal.

The common cancer types among women are breast, cervix, uterus, and colorectal cancer. Lung cancer causes most of the cancer deaths around the world. The rates and types of cancer differ among regions. For instance, in developed countries, there is more occurrence of breast, prostate, lung, and colorectal cancers.

In less developed countries, the most common types of cancers are liver, cervical, and esophageal cancers (Cesario and Marcus 30). Breast cancer causes the most cancer deaths among women, and most of these deaths are in developing countries although incidences are higher in the developed countries (Jemal et al. 71-74). A person develops cancer when his cells grow uncontrollably. In normal body functioning, the cells grow as the body needs them, and they die when not in use. Cancer occurs when the cells do not die, but they continue the process of growth and division.

The damaged cells form tumors, which, when they grow, interfere with the functioning of some of the main body systems. Tumors can be benign,

meaning they are non-cancerous, or they can be malignant. Tumors can spread to other parts of the body, where they can damage the body cells and tissues. Since cancer grows out of body cells, it can affect any part of the body organs or tissues. Causes of Cancer There are different causes of cancer.

These include different types of carcinogens, which promote the development and advancement of different types of cancers. The carcinogens encourage the formation of free radicals, which damage the cells. Carcinogens include chemicals such as benzene, asbestos, and arsenic, tobacco, and radiation from x rays and gamma rays. Different types of viruses can also cause cancer. For instance, the human papillomavirus (HPV) has been linked to cervical cancer, while hepatitis B and C have been linked to liver cancer.

Factors such as obesity are high risk factors of developing cancer. Symptoms of Cancer There are no defined symptoms of cancer, as the symptoms depend on the areas affected by the cancer, and the size of the tumor. Some people develop lumps on their bodies, and this can be an indication of cancer. This is especially the case with breast and testicle cancer. A person with lung cancer will often have shortness of breath, and they will develop a cough.

People with brain cancer tend to experience seizures and headaches. Colon cancer symptoms include constipation, and diarrhea. People with bladder cancer have blood in their urine, and they may experience pain in their bones. A person who has liver cancer develops jaundice, and he or she has

yellow skin. Other types of cancer interfere with different body functions. For instance, brain cancer affects a person's cognitive abilities. Some symptoms such as fatigue, fever, and loss in weight are common symptoms of cancer.

The different symptoms vary depending on different factors. It is possible for two people having the same cancer to have different symptoms (Kwabi-Addo and Indstrom 3-112). Detecting and Testing Cancer Detection of cancer at an early stage is beneficial because it increases the chances of recovery after treatment. Other than the symptoms, the physician will also use other methods to detect the presence of cancer in the body. These methods include various imaging techniques such as different types of scans, which are used depending on the location of the problem, and x rays. The imaging techniques help in locating the presence of a tumor in the body.

The physician has to perform a biopsy to ensure with certainty that the cells extracted are cancerous. After detecting the cancer, the physician has to check if the cancer has spread to other parts of the body, and determine the degree of infection. Cancer happens in different stages, and the physician uses these stages to determine the treatment to use. Treatment Options There are several options that the physician can consider when determining the treatment. The physician has to consider several factors before determining the treatment. These factors include the type and spread of cancer, the stage of the cancer, the patients' age, and the patients' health status.

These factors help to determine the success of the treatment. In many cases, the physician uses a combination of treatments. Many cancer patients

require surgery, which they use in combination with other treatment methods such as radiation and chemotherapy, depending on the level of the cancer (Kumar 1). The physician does not have to use all the treatment methods. In some cases, the surgery rids the person off cancer when the physician removes the tumor. Physicians also use hormone therapy and immunotherapy methods to treat cancer.

The treatment methods used do not guarantee the patients' recovery, and some patients end up dying. Cancer Prevention Physicians, other health providers, different government and non-governmental organizations have embarked on campaigns intended to inform people about cancer. They educate the people concerning different types of cancer, and they teach them how to avoid getting cancer. People can undertake several measures to reduce their chances of getting cancer.

Many of these factors involve observing healthy lifestyles. Some of these measures include quitting smoking, losing and maintaining a healthy weight, reducing the consumption of alcohol, and avoiding exposing oneself to direct sun without the necessary protection. Diet plays an important role in cancer prevention. This is because some of the foods consumed increase the chances of a person developing cancer, while others reduce the chances of getting cancer. About 35% of cancer deaths are caused by unhealthy eating habits (Kwabi-Addo and Indstrom 115). Avoiding artificially made foods or foods high in salt and fat will reduce the chances of cancer, and so will consumption of a healthy diet rich in fruits and vegetables. Some foods such as leeks, garlic, chives, tomatoes, onions, and foods rich in vitamins, zinc,

calcium, and folate, help in cancer prevention (Kwabi-Addo and Indstrom 119). Physicians recommend screening, which will detect the presence of tumors at an early stage.

Conducting mammograms, self-examination of the breast and the testicles, and pap smears are some of the methods used to screen for cancer.

Importance of the Study of Cancer and Effects on Medicine Cancer is a fascinating area in biology, especially because of its ability to affect the whole body. Researching and learning about cancer involves learning about cells, the immune system, genes, tissues, and the entire body system.

Learning about cancer leads to a better understanding of the affected body parts, especially the importance of growth and replication of body cells.

Cancer has had a massive impact on medicine. It has led to increased research in the field, which has contributed to a better understanding of the disease.

It has led to the innovation of medical tools aimed at detecting and treating it. There has been an increase in cancer screening and diagnosing tools. The tools have been improved to reduce the side effects and the results.

For instance, a while back, using radiation as a treatment method meant that even the healthy cells were destroyed in the presence. This has changed as the treatment method has become more effective at targeting the affected cancer cells only. The presence and spread of cancer has led to the development of multiple drug varieties, aimed at treating different types of cancer. The new drug varieties have improved qualities, and they have reduced and more manageable side effects. For instance, researchers are

able to determine the effect of drugs using vertically integrated multiscale models, with quantified biomarkers (Cesario and Marcus 18). It has led to the development of new treatment methods and therapies. New medical technologies have led to the development of personalized and system medicines.

**Conclusion** The rates of cancer have continued to increase over the years. Although there are some unavoidable causes of cancer, most of the causes of cancer are avoidable. People have changes their lifestyle, and they have acquired unhealthy eating habits and a sedentary lifestyle. These changes have contributed to the increased chances of getting cancer. Developing a healthy lifestyle will lead to a reduction in the development of cancer, and it will prolong the lives of those who have cancer. Research in cancer has led to the improvement of diagnosis and treatment methods. Researchers are developing diagnosis tools, which have greater accuracy, and they are developing medication with fewer side effects.

People have increased their awareness about the disease, through education efforts by different organizations and institutions. Works Cited: Cesario, Alfredo and Frederick Marcus. *Cancer Systems Biology, Bioinformatics and Medicine: Research and Clinical Applications*.

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