

Cancer - General Concepts and Terms

Cancer is a general term used to describe any of the multiple types of malignant tumors (neoplasms). Cancer can affect any organ or tissue in the body and is characterized by inappropriate cell growth. One third of all people in the U.S. will develop cancer in their lifetime and it is second only to cardiovascular disease as a cause of death. Cancer cells look abnormal under a microscope. They tend to have a large and irregular nucleus that reflects the abnormal cell division and DNA content. The percent of mitotic (actively dividing) cells is roughly proportional to the tumor's rate of growth. Doubling time is a term that refers to the time it takes for a tumor mass to double in size. For a tumor to reach the size of usual clinical detectability (about 1 cm.), it has already undergone approximately 30 doublings to reach 1 billion cells. Only 10 more doubling cycles are needed to produce a tumor burden of 1 kg, which is usually considered to be lethal. A definite diagnosis of cancer is made by examining the actual abnormal cells under a microscope. This information is present in the APS (attending physician's statement) in the pathology report. Cells are obtained for diagnosis usually by a biopsy. The pathology report is almost always needed by underwriting when evaluating a history of cancer unless the diagnosis was very remote (ie. > 10 years ago). The "aggressiveness" of a cancer is referred to as Grade. Grading is determined by the number of cells undergoing mitosis (cell division). The higher the grade, the more rapid the growth of the cancer and the more likely there will be distant spread. Most cancers are graded on a scale of I to IV with Grade I or well differentiated being the most favorable and Grade III-IV or poorly differentiated having the worst prognosis. Staging of a cancer refers to the extent of the tumor mass (size and/or spread). The most commonly used staging system is called TNM (T - for tumor size, N - regional lymph node spread, and M - any distant metastasis or spread). A large tumor mass and any spread beyond the original tissue are poor prognostic factors. Depending on the type of cancer and stage, treatment can include: surgery, radiation or implantation of radioactive substances, chemotherapy, immunotherapy, and hormonal therapy. In summary, when underwriting a cancer history, the following factors are important in assessing the risk:

- tissue of origin (ie. colon, prostate, breast, etc.)
- grade
- stage
- time since diagnosis
- type of treatment
- time since treatment has ended
- any recurrences or relapses

If your client has had cancer, please answer the following:

1. Please note type of cancer diagnosed: _____

2. List date of first diagnosis: _____

3. How was the cancer treated? (check all that apply)

surgery chemotherapy radiation therapy hormonal therapy
 immunotherapy

4. List date treatment was completed:

5. Please list stage and grade of the cancer:

6. Is your client on any medications?

If yes, please give details

7. Has there been any evidence of recurrence?

If yes, please give details

8. Has your client smoked cigarettes or used any other form of tobacco in the last 5 years?

If yes please give details _____

9. Does your client have any other major health problems (ex: heart disease, etc.)?

If yes, please give details
