IMPAIRED RISK
REFERENCES
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Underwriting Breast Cancer

THE CASE STUDY FOR THIS MONTH

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"We know impaired risk, and we are aggressive whenever we can be."

Case study: A 55 year-old female is looking for $500,000 of term life insurance. She had breast cancer diagnosed five years ago. It was removed and found to be a stage T2 and grade 2. Receptors were positive. There is no evidence of recurrence.

Breast Cancer (BrCa) is the most common female internal cancer. It accounts for one-third of all cancers in women. It occurs in one out of eight women during a lifetime. Therefore, it will be encountered often in underwriting.

Cancer can develop in any tissue in the body. A single cell undergoes a transformation to an abnormal cell that grows and multiplies uncontrollably. No one knows what causes this to happen but what is known is that there is damage to the genes in the cell. This genetic change permits cells to grow out of control, spread to and destroy other tissues. About 25 percent of BrCa victims die as a result of their cancer. This is a highly variable number and depends on multiple factors.

The chances of death in BrCa are closely related to its *stage* and *grade*. The stage is the size of the cancer; it ranges from the smallest extent 0 (called cancer in-situ), to the largest extent 4. The grade is the appearance of the cancer cells under the microscope; it ranges from the cells looking nearly normal, grade 1, to the most unusual looking cells, grade 3. These measures can be found on the pathology report. The higher the numbers in stage and grade, the worse the death risk because there is less likelihood all the cancer can be removed with surgery, the only known cure.

Other factors that help determine the mortality risk of BrCa are provided by the pathology report. A full "path" report is most helpful in assessing the prognosis of BrCa. When certain factors are absent on the report, the mortality risk is better. Factors to look for:

- *Cancer growth*: The cancer growth rate (S-phase and others) can be determined by tests done on the cancer tissue that has been removed.
- *Tissue changes*: Various changes (HER-2 and others) in the cancer tissue have been found to correlate with a poorer prognosis.
- *Blood vessel growth*: Tests that measure new blood vessel growth in the cancer have been used to evaluate prognosis. These new blood vessels promote cancer growth.
- *Presence of certain proteins*: Tests can also ascertain the presence of proteins that promote cancer invasion of the normal breast tissue, other tissues and lymph channels.

The path report also indicates the presence or absence of *estrogen or progesterone receptors*. These receptors are proteins on the surface of the cancer cells. When these are present, as in the case study, the risk is better.

When BrCa has metastasized it will primarily go to the lymph nodes. When this happens the prognosis becomes worse. The more nodes the cancer has reached, the greater the risk. Once the BrCa advances elsewhere it is not curable and when this happens it is more inclined to travel to bone than any other tissue (over 70 percent of the time). For this reason it is not unusual for a doctor to order a bone scan.

There are medications that can be given to improve the prognosis when there are certain characteristics of BrCa present. Tamoxifen is one such medication. Chemotherapy, called adjuvant, can also improve the prognosis when administered just before or just after surgery. Sometimes radiation is used effectively. As a result, these treatments do not preclude insurability and may improve the risk.

In the case study, the most likely offer would be a flat extra of $7 per thousand for two years. BrCa is unique in its tendency to recur or metastasize at a later time. Though it is five years after the BrCa was diagnosed, when most cancers would have been deemed cured, a chance of a mortality necessitates the rating.

Legal & General

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