Tumor markers are molecules occurring in blood or tissue that are associated with cancer and whose measurement is useful in patient diagnosis or clinical management. The ideal marker would be a test for cancer in which:

- A positive result occurs only in patients with malignancy.
- It correlates with stage and with response to treatment.
- It is easy to measure.

Most tumor markers available today meet several, but not all, criteria. Prudential doesn’t routinely order tumor marker tests (except for PSA and CEA) as part of the underwriting process. Results are usually received with a client’s medical records.

Evaluating a series of readings, rather than just one, is important for establishing a trend.

A rise in serial tumor markers generally indicates the presence/recurrence of cancer. Other tools, including scans and biopsy, are used to diagnose cancer or detect recurrence.

Tumor markers can be used for the following purposes:

- Screening for the presence of cancer
- Diagnosing a specific type of cancer
- Determining prognosis
- Monitoring the course of remission following treatment

**Specific Tumor Markers**

**CA-125** is often elevated in patients with ovarian cancer, but elevations can also be caused by other malignancies and by non-malignant conditions. In addition, it does not rise in every case of ovarian cancer; one study found that, among patients with Stage 1 ovarian cancer, fewer than half had abnormal CA-125 levels. The marker is used to screen the effectiveness of treatment and to check for recurrence.

**CEA** is used to evaluate colorectal cancer. There is a strong association between CEA elevation and tumor stage. Elevation following treatment is a strong indicator of recurrence or liver metastasis. See Colorectal Cancer Rx #24.

**CA 15-3** levels are most useful in following the course of breast cancer, especially advanced stages. Levels are rarely elevated in women with early stage breast cancer.

**CA 27-29** is found in the blood of most breast cancer patients. Levels may be used in conjunction with other procedures, such as mammograms, to check for recurrence in women who were previously treated for Stage II and Stage III cancer. CA 27-29 appears to be more sensitive than CA 15-3 in evaluation of tumor extension, but cannot help distinguish Stage I from Stage II.

**PSA (Prostate Specific Antigen)** has been shown useful in detecting prostate cancer as well as monitoring the effectiveness of treatment and checking for recurrence. See Prostate Specific Antigen Rx #48.

To get an idea of how a client with Tumor Markers would be viewed in the underwriting process, use the Ask “Rx”pert Underwriter on the next page for an informal quote.
### Ask “Rx”pert Underwriter (Ask Our Expert)

After reading the *Rx for Success* on Tumor Markers, use this form to Ask “Rx”pert Underwriter for an informal quote.

| Producer ______________________ | Phone ______________________ | Fax ______________________ |
| Client ______________________ | Age/DOB ____________________ | Sex ______________________ |

If your client has been evaluated with tumor markers, please answer the following:

1. What was the specific tumor marker?

   _________________________________________________________________________________________________________

2. What were the results/date?

   _________________________________________________________________________________________________________

3. Have these results been?

   - [ ] Increasing
   - [ ] Decreasing
   - [ ] Stable
   - [ ] Fluctuating Up and Down
   - [ ] Unknown

4. Has cancer been diagnosed?

   Type/date: __________________________________________________________

5. Is there any evidence of metastasis or recurrence?

   - [ ] Yes. Please give details. ________________________________________
   - [ ] No

6. Is your client on any medications?

   - [ ] Yes. Please give details. ________________________________________
   - [ ] No

7. Has your client smoked in the last 12 months?

   - [ ] Yes. Please give details. ________________________________________
   - [ ] No

8. Does your client have any other major health problems?

   - [ ] Yes. Please give details. ________________________________________
   - [ ] No