CONTINUING EDUCATION

The Clinical Use of Tumor Markers in Select Cancers: Are You Confident Enough to Discuss Them With Your Patients?

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Purpose/Objectives: To review the clinical use of tumor markers in select cancers and highlight future directions in tumor marker development.

Data Sources: Guidelines from national and international societies, scientific literature, and Internet resources.

Data Synthesis: Tumor markers are important tools in the management of cancer. Sequencing of the human genome has led to new tumor marker development in the fields of proteomics and DNA microarray technologies.

Conclusions: Tumor marker technology is expanding rapidly; almost a dozen tumor markers currently are being used in the oncology arena, with many more in development. The use of tumor markers can be controversial, particularly because guidelines have not been established for all of the markers.

Implications for Nursing: Oncology nurses need to be well versed in the use of tumor markers to educate and counsel patients with cancer.

Key Points . . .

➤ Tumor markers are used to screen and diagnose cancer, monitor treatment, and help determine recurrence.

➤ Elevations in tumor markers can be caused by benign conditions other than the presence of cancer.

➤ The role of tumor markers will continue to grow as new targeted drug therapies are used to treat patients with cancer.

Goal for CE Enrollees:

To enhance the nurse's knowledge regarding the use of clinical tumor marker data with patients with cancer.

Objectives for CE Enrollees:

1. Discuss the importance of tumor marker use and their indications in specific diseases.
2. List examples of factors that may affect the reliability of tumor marker values.
3. Examine the differences in application of tumor marker information depending on the disease.

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When patients are presented with a tumor marker laboratory value, they often ask about its meaning. Oncology nurses should be prepared to describe the significance of various tumor markers and help patients to understand the debate surrounding their use in making clinical decisions. Leading medical societies have formed committees to review the scientific literature and publish guidelines on the use of tumor markers. However, this process is slow, often spanning years, and in the interim, assays of reputed tumor markers may become available before sufficient evidence supports their use in clinical practice. The recommendations from published guidelines on the appropriate use of tumor markers may differ among medical societies and may add to the confusion (Sturgeon, 2002).

As a result, oncology nurses must be aware of these inconsistencies, understand how and when individual tumor markers are used, and stay informed about new tumor markers. Patients can become aware of tumor markers from the Internet, lay literature, and support groups; therefore, oncology nurses should be as knowledgeable about tumor markers