



ARE CANCER MARKER TESTS RELIABLE?

What IMU Healthcare Medical clinic head **Dr. Verna Lee**, and Sunway Medical Centre consultant breast and endocrine surgeon **Dr. Normayah Kitan** have to say.

UNDERSTANDING CANCER MARKERS

Cancer markers or tumour markers are used to help detect, diagnose, and manage some types of cancer. A cancer marker is a substance that is produced by the body in response to cancer, or is produced by the cancer cell itself. It's found in very high levels in the blood, urine or body tissue of cancer patients. Some markers are specific to one type of cancer while others can be related to several types of cancers. Although an elevated level of a tumour marker may suggest the presence of cancer, this alone is not enough to diagnose cancer. These markers may also increase with non-cancerous conditions. "These tests are not developed to be used on its own to screen for any cancer," says Dr. Verna. Therefore, tumour markers measurements

are usually combined with other tests, such as biopsies to diagnose cancer. Interpretation of tumour marker test results should be combined with thorough medical history, physical examination and other laboratory tests including imaging tests.

TESTING FOR MARKERS

A test can be performed by taking a blood, protein or urine sample which will be analysed for a specific or multiple tumour markers. Different tumour markers are used to test different types of cancers but there are also some cancers that do not have tumour markers. "Remember that a tumour marker test is never a screening test for cancer," says Dr. Normayah. Some cancer marker examples are alpha-fetoprotein (AFP, used to monitor a type of ovarian and testicular cancer) and cancer antigen 125 (CA125, typically used to

monitor ovarian, breast, Fallopian tube, pancreatic and colon cancers). "For confirmed cancer patients, it is important to undergo this test repeatedly and regularly to monitor responses to treatment and to detect recurrence of cancer when test results show increasing trend in tumour marker levels," says Dr. Normayah Kitan. Tumour markers guide doctors in employing suitable cancer treatment options.

WHAT DOES THE RESULT MEAN?

In monitoring treatment, test results may be compared to those done pre-treatment. A decrease or a normal level may indicate that the cancer has responded well to treatment, especially if tumour marker levels were increased before treatment. An increase in the level may mean that the cancer is not

responding to treatment, is growing or has recurred. Chemotherapy treatment can cause cancer cells to die quickly and release large amounts of a tumour marker, causing the level to rise temporarily. A slight increase may not be significant as a doctor looks at the increase trends over time.

A NEGATIVE READING

What if your tumour marker test results show a very low level? "A low level reading is not diagnostic of cancer. You can't rely on it independently as these markers may potentially give false-positive or false-negative results," says Dr. Verna. So psychological complications such as generalised anxiety, excessive fear and major depressive disorders may occur from this. Monetarily, it can be costly as you proceed with other tests to rule out cancer.