Quest Diagnostics Launches New Molecular Test Panel for Enhanced Thyroid Cancer Detection

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Results of a study of the test panel to be unveiled at the 2012 ASCO Annual Meeting on June 4; new test may reduce risk of surgical removal of healthy thyroids for some patients

MADISON, N.J., June 1, 2012 /PRNewswire/ -- Quest Diagnostics (NYSE: DGX), the world's leading provider of diagnostic testing, information and services, today announced a new molecular test panel designed to help physicians determine if a thyroid gland is cancerous and requires surgical removal. The test is believed to be the most comprehensive panel clinically available to identify mutations associated with four gene markers indicated by the American Thyroid Association for the clinical management of indeterminate thyroid biopsies.

"The removal of a healthy thyroid gland is an unfortunate outcome for many patients, due to limitations of current test methods," said Richard E. Reitz, M.D., medical director and chair, Endocrine Division, Quest Diagnostics Nichols Institute, the advanced diagnostic testing, research and development center of Quest Diagnostics. "We believe our molecular panel will enhance the reliability of thyroid biopsy testing, helping to prevent the unnecessary removal of healthy thyroids for many patients."

The Quest Diagnostics Thyroid Cancer Mutation Panel aids in detecting cancer in thyroid biopsies which are found to be indeterminate for cancer by current cytology test methods. Approximately 15% to 20% of these biopsies, which are collected by fine needle aspiration (FNA), produce indeterminate results. An unclear result may increase the risk that a physician, in an abundance of caution, will biopsy additional tissue using a larger needle or surgically remove part or all of a thyroid suspected of having cancer that is later diagnosed as healthy. About 300,000 thyroid FNA biopsy procedures are performed annually in the United States.

The new panel identifies mutations of the molecular markers *BRAF V600E, RAS, RET/PTC,* and *PAX8/PPAR gamma*, which are associated with papillary and follicular thyroid cancer, two common forms of the disease. Practice guidelines from the American Thyroid Association recommend that physicians consider these markers as aids in clinical management of patients with indeterminate biopsy test results. The test complements the company's FNA cytology testing services for thyroid biopsies, and may be used on FNA biopsies ruled indeterminate by these testing services.

Results of a study by scientists at Quest Diagnostics found that 90 of 149 FNA specimens, or about 60%, had mutations of one or more of the four markers tested by the new panel. The presence of the four markers was generally mutually exclusive, suggesting potential value in a hierarchical screening strategy for samples with limited tissue. According to the American Cancer Society, about two tests in every 10 may need to be repeated because the sample does not contain enough cells for testing.

Dr. Reitz will describe the findings during an oral presentation at the 2012 Annual Meeting of the American Society of Clinical Oncology (ASCO) on June 4 from 12:30 to 12:45 PM at McCormick Place in Chicago (Location: E354a). The abstract is available online at: http://abstract.asco.org/AbstView_114_94089.html

The thyroid is a gland located in the neck that influences the body's metabolic processes. Without a thyroid, a patient must take supplemental hormone therapy indefinitely to prevent hypothyroidism. As many as 54,500 new cases of thyroid cancer will be diagnosed in the United States in 2012.

In addition, the company has introduced the Quest Diagnostics Thyroglobulin (Tg) Post-treatment Monitoring Test to aid in monitoring for recurrence of cancer following surgery. Thyroid cancers can cause blood levels of Tg to rise, providing a marker for recurrence. However, these cancers can also cause auto-antibodies (anti-TG) to rise, hindering reliable Tg measurement in 20% to 30% of cases. The new Quest Diagnostics test is believed to be the first for clinical use to use liquid chromatography tandem mass spectrometry (LC/MS/MS), a highly sensitive analytical technique, to confirm and measure Tg in anti-TG positive specimens tested by immunoassays.

Quest Diagnostics will provide information about its thyroid and other cancer testing services at booth 6129 during the 2012 ASCO Annual Meeting, June 1-5.

About Quest Diagnostics
Quest Diagnostics is the world's leading provider of diagnostic testing, information and services that patients and doctors need to make better healthcare decisions. The company offers the broadest access to diagnostic testing services through its network of laboratories and patient service centers, and provides interpretive consultation through its extensive medical and scientific staff. Quest Diagnostics is a pioneer in developing innovative diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional company information is available at QuestDiagnostics.com. Follow us at Facebook.com/QuestDiagnostics and Twitter.com/QuestDX.

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