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ANTINUCLEAR ANTIBODY (ANA) IMMUNOFLUORESCENT TEST METHOD UPDATE

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Effective November 7, 2018, the Immunodiagnostics Laboratory changed the process of manual slide preparation and image acquisition for anti-nuclear antibody (ANA) screening by indirect immunofluorescence (IIF). The new process automates and standardizes ANA by IIF, the reference method for screening for ANA-associated autoimmune diseases. The system utilizes a robotic slide preparation process and computer-aided immunofluorescence microscopy.

There will be no change in ordering the test (test code: **ANA**). Positive screens will continue to be reported with the titer and pattern. In addition to the current eight reported patterns (Homogeneous, Speckled, Nucleolar, Centromere, Cytoplasmic, Multiple Nuclear Dot, Proliferating Cell Nuclear Antigen, and Nuclear Membrane) the DFS70 pattern will be added. The DFS70 pattern is characterized by a dense fine speckled granular marking of nuclei undergoing interphase and condensed chromosomes in mitosis.

The DFS70 pattern has been reported in recent years as the potential biomarker that can be clinically used to discriminate ANA-Associated Rheumatoid Diseases (AARD) from non-AARD patients in ANA IIF positive individuals. The prevalence of anti-DFS70 is less than 1% in AARD patients but is detectable in approximately 8% of healthy persons. The presence of anti-DFS70 antibodies in cases of negative disease-associated autoantibodies (such as dsDNA, Scl-70, SSA, etc.) without clinical symptoms has been shown to indicate a low likelihood of AARDs or connective tissue diseases (CTDs) in 5 and 10-year follow up studies (1, 2, 3).

The benefits of this new method are:

- Standardized processing and consistent slide quality.
- Images are digitalized and viewable on screen.
- Images can be archived for future review.
- Improved patient care.

BEYOND numbers

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