

Monitor the **SLE** Markers that Matter

AVISE SLE MONITOR OFFERS VALUABLE INFORMATION WITH:

Biomarkers associated with SLE disease activity:

- **EC4d:** Patented cell-bound complement activation product (CB-CAP) shown to decline rapidly in association with clinical improvements ¹⁻³
- **Anti-dsDNA by CIA:** Special method for measuring quantitative levels of anti-double stranded deoxyribonucleic acid with superior correlation to disease activity compared to other methods ^{3,4}
- **C3/C4:** Major proteins of the complement process playing a key role in the inflammatory and immune system

Biomarkers associated with specific adverse events in SLE:

- NEW** • **PC4d:** Patented CB-CAP significantly associated with history of thrombosis and all-cause mortality ^{5,6}
- **Anti-C1q:** Validated marker associated with lupus nephritis and SLE disease activity ^{2,7}

Leverage the chronological reports from AVISE SLE Monitor
 anytime you assess your SLE patients

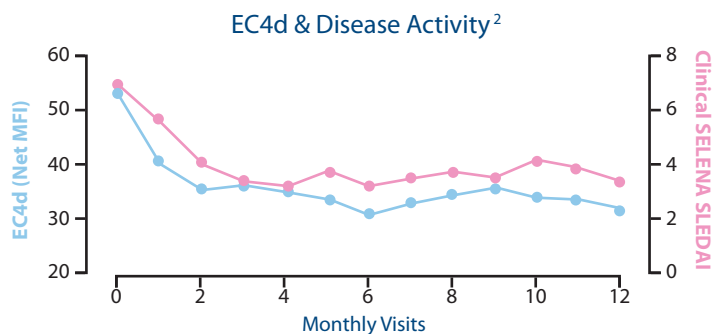
AVISE SLE MONITOR INCORPORATES A POWERFUL COMBINATION OF MARKERS TO PROVIDE ACTIONABLE RESULTS



Biomarkers associated with SLE disease activity:

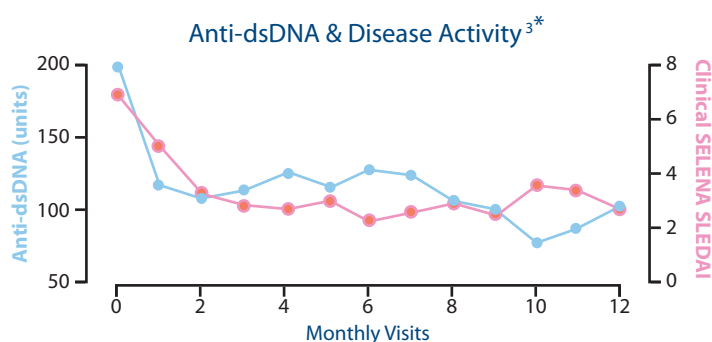
EC4d

Erythrocyte-bound C4d (EC4d) is a patented blood test that has been shown to significantly correlate with disease activity as measured by the clinical (non-immunological) SELENA-SLEDAI ($p < 0.01$), SF-36 ($p < 0.01$), and BILAG-2004 ($p < 0.05$).¹⁻³ In addition, EC4d has been shown to correlate with disease activity independent of C3/C4 levels.³ Levels of EC4d have been shown to decline in association with clinical improvement, even when levels of C3/C4 have little or no change.



Anti-dsDNA by CIA

Anti-dsDNA by Chemiluminescence Immunoassay (CIA) is a quantitative calibrated assay measuring IgG autoantibodies against double stranded deoxyribonucleic acid. Perhaps due to an expanded dynamic range, this assay has demonstrated superior agreement with the Farr assay as well as correlation to disease activity, compared to other anti-dsDNA methods.^{3,4}



*Adapted from Merrill J, et al. Lupus Science & Medicine. 2018.

C3/C4

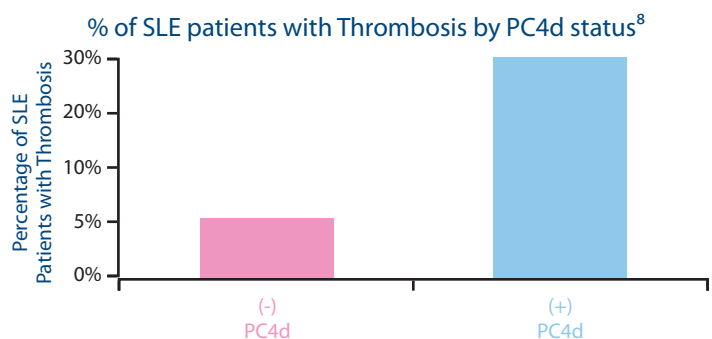
Major proteins of the complement process playing a key role in the inflammatory and immune system

Biomarkers associated with specific adverse events in SLE:

PC4d



Platelet-bound C4d (PC4d) is a patented blood test capable of uncovering significant association with thrombosis in patients with SLE, independent of antiphospholipid antibodies. Compared to those with low levels, elevation in PC4d is associated with history of thrombosis (OR 8.4 [95% CI 2.8-24.8]),⁵ and a 7.5 fold increase in all-cause mortality (HR 7.5).⁶ Persistent positive PC4d levels in SLE patients is significantly associated with ischemic stroke (OR 5.5 [95% CI 1.7-17.6]).^{5,6}



Anti-C1q



Antibody levels to C1q is a laboratory developed test validated at the Exagen laboratory which has shown a significantly associated with lupus nephritis, clinical SELENA-SLEDAI values ($p < 0.05$), and proteinuria ($p < 0.01$).^{2,7}

Monitor all your SLE patients with the advanced biomarkers available only in AVISE SLE Monitor.

Visit www.AviseTest.com or call 888.452.1522.

References:

- Kao A, Navratil J, Ruffing M, et al. Erythrocyte C3d and C4d for Monitoring Disease Activity in Systemic Lupus Erythematosus. Arthritis & Rheumatism. 2010.
- Buyon J, Furie R, Putterman C, et al. Reduction in erythrocyte-bound complement activation products and titers of Anti-C1q antibodies associated with clinical improvements in systemic lupus erythematosus. Lupus Science & Medicine. 2016.
- Merrill J, Petri M, Buyon J, et al. Erythrocyte-bound C4d in combination with complement and autoantibody status for the monitoring of SLE. Lupus Science & Medicine. 2018.
- Mahler M, Bentow C, O'Malley T, et al. Performance Characteristics of Different Anti-Double-Stranded DNA Antibody Assays in the Monitoring of Systemic Lupus Erythematosus. J Immunol Res. 2017;2017:1720902.
- Petri M, Conklin J, Apilado R, et al. Complement C4d Split Products in Combination with Lupus Anticoagulant and Low Complement Associate with Thrombosis in SLE [abstract]. Arthritis Rheumatol. 2018; 70
- Kao A, McBurney C, Sattar A, et al. Relation of platelet C4d with all-cause mortality and ischemic stroke in patients with systemic lupus erythematosus. Transl Stroke Res 2014; 5(4):510-518.
- Akhter E, Burlingame R, Seaman A, et al. Anti-C1Q antibodies have a higher correlation with flares of lupus nephritis than other serum markers. Lupus. 2012.
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