

GlycA: Providing a More Stable Measure of Systemic Inflammation than hsCRP

Sustained inflammation is the basis for many chronic diseases. GlycA is a marker of systemic inflammation that may aid in the identification and stratification of individuals at risk for future cardiovascular disease (CVD) events. It may also aid as an independent prognostic marker for recurrent cardiovascular events in patients with stable coronary disease or acute coronary syndrome.

Recently published data suggest GlycA may have clinical utility similar or complementary to that of high sensitivity C-reactive protein (hsCRP), fibrinogen, and other biomarkers of inflammation.^{1,3-11} Unlike existing inflammatory biomarkers that are a discrete molecular species, GlycA is a composite biomarker that integrates the protein levels and glycosylation states of several of the most abundant acute phase proteins in serum.¹ As such, this may allow for a more stable measure of inflammation with low intra-individual variability.¹ Guidelines recommend two serial measurements be taken at least two weeks apart when using hsCRP for CVD risk assessment²; however, only one measurement is necessary for evaluation of inflammation using GlycA.¹

Multiple studies have assessed the relationship of GlycA with clinical outcomes, ranging from incident atherosclerotic CVD events to mortality, in both the general population as well as in patients with chronic inflammatory diseases such as rheumatoid arthritis and psoriasis.³⁻¹⁴ These relationships have been assessed for GlycA individually, as well as in combination with hsCRP levels.³⁻¹⁴ Overall, these data consistently demonstrate a significant, independent relationship between GlycA and CVD outcomes.³⁻¹¹ GlycA also adds significant information to hsCRP regarding inflammation-related CVD risk,^{3-5,10} thereby making GlycA and hsCRP complementary inflammatory biomarkers that together may provide a more reliable indication of a

patient's inflammatory CVD risk than either marker alone.^{3-5,10}

Clinicians using hsCRP may wish to consider ordering GlycA and hsCRP (preferably on the same sample) to adjudicate a patient's inflammation-related CVD risk status. When both values are low, low inflammation-related CVD risk is confirmed. When GlycA is elevated (> 400 µmol/L), inflammation-related CVD risk is elevated, with the greatest CVD risk noted when both GlycA and hsCRP are high (> 400 µmol/L and > 3 mg/L, respectively).¹⁰ Rosuvastatin and extended-release niacin treatment did not significantly reduce GlycA levels.^{5,11} However, GlycA has been shown to be reduced by exercise, lifestyle intervention, bariatric surgery, and anti-inflammatory therapies such as baricitinib and adalimumab.¹⁵⁻²⁰

LabCorp offers the following tests to assist clinicians in identifying and stratifying individuals at risk for future cardiovascular events.

Test Name	Test No.
GlycA	123850
Reference Interval (µmol/L):	
Low	< 400
High	≥ 400
Methodology: Nuclear magnetic resonance (NMR)	
Platform: Vantera	
C-Reactive Protein (CRP), High Sensitivity (Cardiac Risk Assessment)	120766

For the most current information regarding test options, including specimen requirements and CPT codes, please consult the online Test Menu at www.LabCorp.com.

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