# TECHNICAL BULLETIN

☐**NEW TEST** ☒**TEST CHANGE**

NOTIFICATION DATE: 03/28/2025
EFFECTIVE DATE: 04/02/2025

## Preeclampsia 2nd 3rd Trimester (Preeclampsia 2nd 3rd Tri)

On the effective date, Northwell Health Laboratories will now perform the Preeclampsia 2nd 3rd Trimester prognostic test in-house using ThermoFisher BRAHMS Kryptor Gold Immunoanalyzers based on TRACE (Time-Resolved Amplified Cryptate Emission) technology.

Preeclampsia 2nd 3rd Trimester is a mid to late trimester prognostic test used to aid in the risk assessment of pregnant women hospitalized for hypertensive disorders of pregnancy for progression to preeclampsia with severe features (as defined by the American College of Obstetricians and Gynecologists (ACOG) guidelines) within 2 weeks of presentation.

The test incorporates the maternal serum markers soluble fms-like tyrosine kinase-1 (sFlt-1) and Placental Growth Factor (PlGF). The ratio of the anti-angiogenic sFlt-1 to the angiogenic PlGF help to inform clinicians which patient would be at higher risk for developing PE with severe features. Thereafter, women whose test is positive (i.e. high risk) would receive stepped-up care. The elevation in the sFlt-1/PlGF ratio antedates ACOG defined thresholds for delivery (e.g., LFT elevations, thrombocytopenia abnormal umbilical Doppler), and therefore is useful to step-up appropriate care and intensify surveillance before severe features develop.

At an sFlt-t/PlGF ratio cut-off set equal to 40 the estimated sensitivity for preeclampsia with severe features within two weeks is 93.5% with a specificity of 76.6%.

| **Requirement/Parameters** | **New**<br>Preeclampsia 2nd 3rd Trimester | **Current**<br>Preeclampsia 2nd and 3rd Trimester |
|---|---|---|
| **Analyte(s):** | sFlt-1 and PlGF | sFlt-1 and PlGF |
| **Method:** | Time-Resolved Amplified Cryptate Emission (TRACE) | Time-Resolved Amplified Cryptate Emission (TRACE) |
| **Specimen Requirements:** | Maternal Serum | Maternal Serum |
| **Submission Container/Tube:** | Gold top serum separator tube | Gold top serum separator tube |
| **Specimen Volume/Minimum Volume:** | 3ml (0.5 ml min) | 1 mL serum (600uL min) |
| **Gestational Age Range:** | 23w0d – 37w6d | 23w0d – 37w6d |
| **Collection Instructions:** | Patients should avoid intravenous heparin 24 hours prior to venipuncture.<br>Allow blood to clot, avoiding hemolysis.<br>Separate serum from cells by centrifugation.<br>Transport spun tube to testing laboratory. | Patients should avoid intravenous heparin within 24 hours prior to venipuncture. |
| **Specimen Stability:** | Room Temperature 6 days<br>Refrigerated 6 days<br>Frozen 6 months | Room Temperature 1 Day<br>Refrigerated 1 Day<br>Frozen 6 Months |
| **Reference Range:** | sFlt-1/PlGF ratio 0-39 | sFlt-1/PlGF ratio 0-39 |
| **Computer Interface Code:** | PDM # 245507 | PDM # 245507 |
| **Test Order:** | Preeclampsia 2nd 3rd Tri | Preeclampsia 2nd 3rd Tri |

**If you have any questions, please contact Client Services at (800) 472-5757.**