TECHNICAL BULLETIN

☒NEW TEST ☐TEST CHANGE

NOTIFICATION DATE: 05/29/2025
EFFECTIVE DATE: Immediate

1T Maternal-Fetal Screen (1TMFS)

On the effective date, Northwell Health Laboratories will introduce First Trimester Maternal-Fetal Screening using ThermoFisher BRAHMS Kryptor Gold Immunoanalyzers based on Time-Resolved Amplified Cryptate Emission TRACE technology.

The 1T Maternal-Fetal Screen combines the First Trimester Aneuploidy (1TANEU) and Pre-term Preeclampsia (1TPTPE) screening tests into a single test. 1TMFS includes the ultrasound evaluations of Nuchal Translucency (NT), fetal Nasal Bone (NB)(optional) and Uterine Artery Doppler Pulsatility Index (UtAD-PI), incorporates the biophysical measurements of Body Mass Index (BMI) and Mean arterial Pressure (MAP), and measures the first trimester maternal serum analytes AFP, free-βhCG, Inhbin-A, PAPP-A and PlGF. A comprehensive risk report provides patient specific risks for Down syndrome, Trisomy 13/18 and pre-term preeclampsia.

The test does not screen for Open Neural Tube Defects (ONTD'S)

Regardless of risk results, extreme analyte results (free βhCG $\leq$ 1st percentile or PAPP-A $\leq$ 5th percentile) will be flagged and valuable comments and references will be provided regarding the risk of other potential adverse pregnancy outcomes such as preterm birth < 34 weeks, fetal loss < 24 weeks, fetal loss $\geq$ 24 weeks, low birth weight and preeclampsia.

Test Requirement/Parameters	**1T Maternal-Fetal Screen**
Analyte(s):	AFP, free-βhCG, Inhibin-A, PAPP-A and PlGF.
Method:	Time-Resolved Amplified Cryptate Emission (TRACE)
Specimen Requirements:	Maternal Serum
Submission Container/Tube:	Gold top serum separator tube
Specimen Volume/Minimum Volume:	3ml (0.5 ml min)
Gestational Age Range:	10w0d – 13w6d
Collection Instructions:	Allow blood to clot, avoiding hemolysis. Separate serum from cells by centrifugation. Transport spun tube to testing laboratory.
Specimen Stability:	Room Temperature 6 days Refrigerated 14 days

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

Ultrasound	NT, NB and UtAD-PI are assessed when CRL is 45-84mm. Sonographer must be credentialed by the Fetal Medicine Foundation and the certification number must be provided. Ultrasound data is submitted to FMF on a regular basis for quality control	
Biophysical Information	Patient weight, height, left arm blood pressure and right arm blood pressure are required	
Reference Ranges:	Down Syndrome Risk	< 1/250
	T18/13 Risk	< 1/100
	Pre-Term Preeclampsia Risk	< 1/150
Computer Interface Code:	**PDM # 251466**	
Test Order:	**1TMFS**	