



Technical Bulletin

TO: Physicians, Staff
From: Wesley Kim, MD, Medical Director
Date: January 16, 2018
Subject: Maternal Serum for Alpha-Fetoprotein (MSAFP ONTD ONLY)

Prenatal screening is an important test to help assess the risk of open neural tube defects and Down's Syndrome in the developing fetus. Historically this was based on testing for various chemical analytes in the mother's serum in the second trimester. The two main tests for this were the Triple Screen (MSAFP, HCG, Estriol) followed by the Quad Screen (MSAFP, HCG, Estriol, Inhibin A). The next set of tests to be developed looked at different chemical analytes in the mother's serum and a radiologic test, but in the first trimester (Free BHCG, PAPP, Nuchal Translucency). In addition, both first trimester and second trimester testing could be combined to give a total assessment in the second trimester.

Presently, these tests are still available, however the latest test involves looking at cell-free DNA testing in the mother's sample, with the premise being that circulating fetal DNA is present in the mother's circulation during pregnancy. While the performance of this test is equivalent, if not superior, to historical chemical based testing, it can only make an assessment of risk for Down's Syndrome. It does not assess risk for open neural tube defects.

To make testing ordering as clear and efficient as possible for our clients and to ensure patient safety, DLS has created an additional test code to be able to order prenatal screening for open neural tube defects alone (MSAFP only) to complement those physicians who prefer ordering cell-free DNA for their assessment of Down's Syndrome.

Beginning January 16, 2018, DLS has added the following test code to their prenatal requisitions to allow clients to order MSAFP only for assessment of open neural tube defect only.

Test Information:

TEST	ORDER CODE	GA ASSESSMENT RANGE
MATERNAL SERUM ALPHA-FETOPROTEIN (MSAFP ONTD ONLY)	298	15-20 WEEKS & 3 DAYS (OPTIMAL 16-18 WEEKS)

If you have any questions or concerns, please call client services at 589-5101, or Dr. Wesley J. Kim at 589-5131.