





 $\label{to:total continuous} {\sf To:} \qquad {\sf Asthu \, Fertility \, Clinic-Bangalore}$ 

#69, 1ST Floor, 4th Cross,

10th Main,

Karnataka

Bangalore - 560038

Contact:

Sample ID 2410012895

Patient ID 110244193

Collected on 25/04/2024

Reported on

Referred by **Dr. Harshita S.** 

Understand Your



Scan OR code

Patient Name: Mrs. S KRISHNAVENI Patient DOB: 25/03/1997

### **EVICO FT Enhanced: Enhanced FTS**

A. Common Aneuploidies Screening				
Conditions (Disorder) Fi	inal Adjusted Ri	sk (at term) Interpre	tation	
T21 (Down syndrome)	1: 100000	Low Risk	LOW	INTERMEDIATE HIGH
T18 (Edwards' syndrome)	1: 100000	Low Risk	LOW	HIGH
T13 (Patau syndrome)	1:100000	Low Risk	LOW	HIGH

Marker	Multiple Of Median(MoM)		
Free ß-hCC	3.00		
PAPP-A	3.59		
PLGF	1.42		
AFP	4.34		

### **Suggestions**

In view of free bHCG MoMs observed in the mother, kindly consider correlation with fetal growth and well being scan at 28 - 30 weeks. In view of PAPP-A MoMs observed in the mother, please correlate clinically with Ultrasound findings.

In view of Alpha feto protein (AFP) MoMs observed in the mother-

- 1) Detailed anomaly scan to assess for fetal abnormalities especially that of the spine, anterior abdominal wall and kidneys is recommended.
- 2) In the absence of fetal anomalies, focused fetal surveillance for growth and well being is recommended in the 3rd trimester of the pregnancy.

**B. SGA/IUGR** 

In the view of maternal history, patient demographics and observed biochemical MoM values, there appears to be **low predisposition to SGA/IUGR**.

Reference: Ultrasound Obstet Gynecol 2021; 57: 52-61, K. H. Nicolaides et.al (Fetal Medicine Foundation (UK) 2021)

C. Fetal Macrosomia In the view of maternal history, patient demographics and observed biochemical MoM values, there appears to be <u>increased predisposition to Fetal Macrosomia</u>. Consider clinical correlation and increased surveillance in pregnancy.

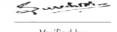
Reference: Ultrasound Obstet Gynecol 2016; 47: 332-339, K. H. Nicolaides et.al (Fetal Medicine Foundation (UK) 2016)

Note: All the above assessments have been calculated based on the clinical information provided in the test requisition form.



Verified by
Mr. Pradip Kadam

Incharge Biochemistry (FMF ID: 147760)



Verified by

Dr. Suresh Bhanushali

MD (Path), Consultant Pathologist

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Patient name: Mrs. S KRISHNAVENI Sample ID: 2410012895

EVIC Screen is an evidence based Comprehensive prenatal screening program curated by Lilac Insights in accordance with the Fetal Medicine Foundation (UK) guidelines for First Trimester Screening to determine the probability of most common chromosomal aneuploidies in a pregnancy as well as the common pregnancy disorders such as pre-eclampsia, fetal macrosomia, IUGR/SGA. It utilizes

- Hormonal values from the pregnancies measured on Fetal Medicine Foundation (UK) accredited analyzers and reagents
- Robust indigenous medians from over 10 lac+ pregnancies for different gestation age & maternal age screened at Lilac Insights
- Risk predictions from evidence based algorithms developed and validated through large international studies carried by Fetal Medicine Foundation (UK)

#### **UKNEQAS: United Kingdom National External Quality Assessment Service**

RIQAS: Randox International Quality Assessment Scheme



The Risk Assessment Performed Using **CE-marked Antenatal Risk Evaluation Software** Certified by the British Standards Institute (BSI)-ISO 13485:2016

# **Ongoing Pregnancy Details**

No. of fetuses: 1 EDD: 04/11/2024 Age at Term: 21.7 Years GA is Based on: Ass. rep.

LMP Date: 25/01/2024 Certainty: Unknown Smoking: None

Assisted Reproduction: Yes

Weight: 45.00 Kg Ethinicity : Asian

Type: Donor egg

Transfer Date: 15/02/2024 Age at Extraction: 21 yrs Donor DOB: 15/06/2002

Previou	Previous Pregnancy Details				
Aneuploidies	Pre-eclampsia	Other			
<ul><li>☐ Down syndrome</li><li>☐ Patau syndrome</li><li>☐ Edwards' syndrome</li><li>☐ NTD syndrome</li></ul>	PE in previous pregnancy Pat. mother had PE	Insulin dependent diabetes Chronic hypertension			

EDD: Estimated Due Date | GA: Gestation Age | LMP: Last Menstrual Period | FHR: Fetal Heart Rate | NTD: Neural Tube Defect | PE: Pre-eclampsia | DOB: Date of Birth | CRL: Crown Rump Length | free-ß-hCG: free-Beta Human Chorionic Gonadotropin | NT: Nuchal Translucency | NB: Nasal Bone | PAPPA: Pregnancy-associated Plasma Protein-A | PLGF: Placental Growth Factor

Sample Type: Serum

Risk assessment: Algorithm validated by SURUSS 2003, N.J Wald

Method:

# **Specimen Details**

Pregnancy Type: Singleton Sample ID: 2410012895 Collected On: 25/04/2024 Received On: 26/04/2024

Scan by: Dr. Anitha Shettikeri

Scan Date: 25/04/2024 CRL : 64.3 mm

Patient ID: 110244193 GA at Coll Date: 12 W 3 D Registered On: 02/05/2024

GA at Scan Date: 12 W 3 D

Parameter	Concentration	Units	Corr. Mom
Free-ß-hCG	152.00	ng/mL	3.00
PAPP-A	14100.00	mU/L	3.59
PLGF	89.00	pg/mL	1.42
AFP	74.80	U/mL	4.34
NT	1.4	mm	0.96
NB	Present		

	Detailed R	isk Assessment	
	Aneuploidies		
Disorder	Trisomy 21 (Down Syndrome)	Trisomy 18 (Edwards' Syndrome)	Trisomy 13 (Patau Syndrome)
Cut-off	1:250	1:100	1:100
Age/ Apriori risk	1:1503	1:13520	1:40615
Final risk (at term)	1:100000	1:100000	1:100000
Result	Low Risk	Low Risk	Low Risk









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# **Prenatal Screening Background**

Every pregnant woman carries a certain degree of risk that her fetus/baby may have certain chromosomal defect/ abnormalities. Diagnosis of these fetal chromosomal abnormalities requires confirmatory testing through analysis of amniocytes or Chorionic Villous Samples (CVS). However, amniocentesis and CVS procedures carry some degree of risk for miscarriage or other pregnancy complications (Tabor and Alfirevic, 2010). Therefore, in routine practice, prenatal screening tests are offered to a pregnant woman to provide her a personalised risk for the most common chromosomal abnormalities (T21-Down syndrome, T18- Edwards' syndrome, T13- Patau syndrome) using her peripheral blood sample. Based on this risk assessment, if the risk is high or intermediate, you can take informed decision of opting for invasive procedure such as amniocentesis or CVS followed by confirmatory diagnostic test(s), as per discussion with your clinician.

#### PRENATAL SCREENING TESTS ARE NOT CONFIRMATORY TESTS. THEY ARE LIKELIHOOD ASSESSMENT TESTS.

You may get your prenatal screening result as either of the following:-

High Risk

A High Risk Result does not mean that the pregnancy is affected with the condition. It means that the likelihood of the pregnancy having a condition is higher than the cut-off (Most commonly used cut-off is 1:250 and this represents the risk of pregnancy loss from confirmatory testing through CVS or amniocentesis).

Low Risk

Indiana di da

A Low Risk result does not mean that the pregnancy is not affected with a condition. It means that the likelihood of the pregnancy having a condition is lower than the cut-off.

An intermediate Risk result means that the pregnancy has an equivocal or a borderline risk of being affected with a condition. In this case, you may want to choose a second stage screening modality like an Integrated Screening Test that is done between 16 to 20 weeks of pregnancy or a Non-invasive Prenatal Screening Test between 12 to 20 weeks of pregnancy before taking a decision on an invasive confirmatory testing. This will help you improve the sensitivity of the screening test keeping an invasive test a last option were you to come as a high risk in the second stage screening test.

# Significance Of Multiple Of Medians (MoMs)

Prenatal screening involves assessing the likelihood of specific pregnancy-related conditions by analyzing various markers, including hormonal levels, biophysical measurements, and ultrasound findings. Hormones, particularly those produced by the fetus or placenta, not only provide insights into the risk of chromosomal abnormalities but also signal potential issues with placental function. This, in turn, can lead to complications such as pre-eclampsia, intrauterine growth restriction (IUGR), and fetal macrosomia.

In addition to hormonal markers, various other biophysical and ultrasound markers can also offer indications of possible placental impairment. Therefore, it is essential to consider both the reported multiples of the median (MoMs) for these markers and the available information about the pregnancy when interpreting the screening results. This comprehensive approach provides a more thorough understanding of the pregnancy's status and potential risks.

#### Limitations of the Test:

As prenatal screening tests are not confirmatory diagnostic tests, the possibility of false positive or false negative results can not be denied. The results issued for this test does not eliminate the possibility that this pregnancy may be associated with other chromosomal or sub-chromosomal abnormalities, birth defects and other complications.

Nuchal Translucency is the most prominent marker in screening for Trisomy 13, 18, 21 in the first trimester and should be measured in accordance with the Fetal Medicine Foundation (UK) guidelines. Nuchal Translucency or Crown Rump Length measurement, if not performed as per FMF (UK) imaging guidelines may lead to erroneous risk assessments and Lilac Insights bears no responsibility for errors arising due to sonography measurements not performed as per these criteria defined by international bodies such as FMF (UK), ISUOG.

It is assumed that the details provided along with the sample are correct. The manner in which this information is used to guide patient care is the responsibility of the healthcare provider, including advising for the need for genetic counselling or additional diagnostic testing like amniocentesis or Chorionic Villus Sampling. Any diagnostic test should be interpreted in the context of all available clinical findings. As with any medical test, there is always a chance of failure or error in sample analysis though extensive measures are taken to avoid these errors.

#### Note:

- Quality of the Down syndrome screening program (Biochemical values, MoMs and Risk assessments) is monitored by UKNEQAS on an ongoing basis.
- This interpretation assumes that patient and specimen details are accurate and correct.
- Lilac Insights does not bear responsibility for ultrasound measurements like CRL,NT,NB etc. We strongly recommend that ultrasound measurements are performed as per FMF (UK)/ISUOG practice guidelines.
- It must be clearly understood that the results represent risk and not diagnostic outcomes. Increased risk does not mean that the baby is affected and
  further tests must be performed before a firm diagnosis can be made. A Low Risk result does not exclude the possibility of Down syndrome or other
  abnormalities, as the risk assessment does not detect all affected pregnancies.
- Each sample received at Lilac Insights' processing centre is handled with the utmost sensitivity and care. All samples received on Sundays and National holidays are stored as per specific guidelines for the respective specimens and processed on the next day.

For more information, visit our website at: <a href="https://www.lilacinsights.com/faq-pns">www.lilacinsights.com/faq-pns</a>

