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EVICScreen™ Evidence Based Comprehensive Screening

EVICDUO™ Dual Marker Screening

To:	**Gopal Krishna Nursing Home-Kanpur**
	Saket Nagar
	Uttar Pradesh
	Kanpur - 208023
	Contact:
	Report Of: Mrs. RENU DHEERU
	Pt. Contact: 9140147573

Sample ID	2110039087
Patient ID	1002111132
Received on	05/05/2021 13:24
Registered on	06/05/2021 16:32
Reported on	07/05/2021 10:19
Referred by	**DR.SADHANA SINGH**
Sonography by	**DR.POONAM MEHROTRA**

EVICOSCREEN - EVIDENCE BASED COMPREHENSIVE PRENATAL SCREENING REPORT

Patient Name: Mrs. RENU DHEERU Patient DOB: 24/12/1985

Ethnicity: Asian City: KANPUR Hospital ID:

Sample Type: Serum **Risk assessment:** Algorithm validated by SURUSS 2003, N.J Wald

Method: Time-resolved Fluroimmunoassay

EVICScreen™ is an evidence based 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. It utilizes:

- Hormonal values from the pregnancy measured on Fetal Medicine foundation (UK) accredited analyzers and reagents
- Robust indigenous medians from over 5 lac+ pregnancies for different gestation ages
- Risk calculations from evidence based algorithms validated through large international studies
- External audit of the prenatal screening program by United Kingdom National External Quality Assessment Service (UKNEQAS) scheme and Randox International Quality Assessment Scheme (RIQAS)

RISK ASSESSMENT

T21 (Down syndrome)	**1: 566**	Intermediate Risk	LOW / INTERMEDIATE / HIGH
T18 (Edwards' syndrome)	**1: 100000**	Low Risk	LOW / HIGH
T13 (Patau syndrome)	**1: 100000**	Low Risk	LOW / HIGH

MULTIPLE OF MEDIAN (MoM)

Free ß-hCG	2.08
PAPP-A	1.90

INTERPRETATION

The First Trimester Screening for the given sample is found **Intermediate Risk for Down Syndrome.**

SUGGESTIONS AND OTHER FINDINGS

- In view of intermediate risk (Risk between 1:251 to 1:1000), further counselling is recommended.
- Latest guidelines suggest further evaluation of intermediate risk patients by the following options as indicated:

a) Integrated screening with detailed Genetic Sonogram (Detection rate: 92-95%), ref: Kypros Nicolaides et al, Fetal Diagn Ther 2014;35:174-184.
b) Non- Invasive Prenatal Testing/ Screening (NIPT) (Detection rate: ;99%), ref: ISPD guidelines 2015.
c) Definitive testing through Fetal Karyotyping.

In view of the raised serum free βhCG, fetal growth scan is suggested at 28 - 30 weeks in addition to their routine antenatal care.

MC-4055

UK NEQAS International Quality Expertise Lab Reg. No. 90968

Verified by
Mr. Pradip Kadam
Incharge Biochemistry

Verified by
Dr. Suresh Bhanushali
MD (Path), Consultant Pathologist

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Patient name : Mrs. RENU DHEERU **Sample ID** : 2110039087

PREGNANCY DETAILS

No. of fetuses	: 1	**EDD**	: 03/11/2021	**Age at Term**	: 35.9 Years
GA is Based on	: CRL 64mm at 26/04/2021	**LMP Date**	: 28/01/2021	**LMP Certainty**	: Regular
Smoking : None	**Parity** :	**Height**	:	**Weight**	: 57.0 Kg

FHR :

Previous pregnancy history		Pre-eclampsia history		Other findings	
☐ Down syndrome	☐ Edwards' syndrome	☐ PE in previous pregnancy		☐ Insulin dependent diabetes	
☐ Patau syndrome	☐ NTD syndrome	☐ Pat. mother had PE		☐ 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

SPECIMEN DETAILS

Sample ID	: 2110039087	**CRL**	: 64 mm
Collection Date	: 02/05/2021	**CRL2**	:
Scan Date	: 26/04/2021	**BPD**	:
GA at Coll Date	: 13 Weeks 4 Days	**BPD2**	:
GA at Scan Date	: 12 Weeks 5 Days	**HC**	:
Received on	: 05/05/2021	**HC2**	:

Test Name	Conc.	Unit	Corr. Mom
Free-ß-hCG	64.89	ng/mL	2.08
PAPP-A	10800.00	mU/L	1.90

GA: Gestation Age | CRL: Crown Rump Length | BPD: Bi-parietal Diameter | HC: Head Circumference | free-ß-hCG: free-Beta Human Chorionic Gonadotropin NT: Nuchal Translucency | PAPP-A: Pregnancy-associated Plasma Protein-A

RISKS

Disorder: Down Syndrome **Result:** **Intermediate Risk** 🟡

Final risk:	1:566	Age risk:	1:356
Cutoff	1:250	Risk type	Risk At Term

Disorder: Edwards' Syndrome **Result:** **Low Risk** 🟢

Final risk:	1:100000	Age risk:	1:3201
Cutoff	1:100	Risk type	Risk At Term

Disorder: Patau Syndrome **Result:** **Low Risk** 🟢

Final risk:	1:100000	Age risk:	1:9606
Cutoff	1:100	Risk type	Risk At Term

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Patient name : Mrs. RENU DHEERU **Sample ID** : 2110039087

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

High Risk or Screen Positive Result: 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

Low Risk or Screen Negative Result: 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.

Intermediate Risk

Intermediate Risk result: 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 determines the likelihood of the pregnancy being affected with certain conditions by analysing levels of certain hormones. These hormones are Feto placental products (released by Fetus or placenta). Their levels not only indicate propensity of the fetus being affected with certain chromosomal conditions, they also provide indication of placental insufficiency that can potentially lead to pregnancy complications like Pre-Eclampsia or Intra-Uterine Growth Restriction. It is therefore important to take cognisance of the Reported MoMs alongside the Risk results.

For more information, visit our website at: www.lilacinsights.com/faq-pns

DISCLAIMERS

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 the NT & CRL measurements. We strongly recommend that NT/ CRL measurements are performed as per FMF (UK)/ISUOG practice guidelines.
- The above risk has been calculated based on Biochemistry values alone.
- 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's syndrome or other abnormalities, as the risk assessment does not detect all affected pregnancies.

END OF REPORT

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