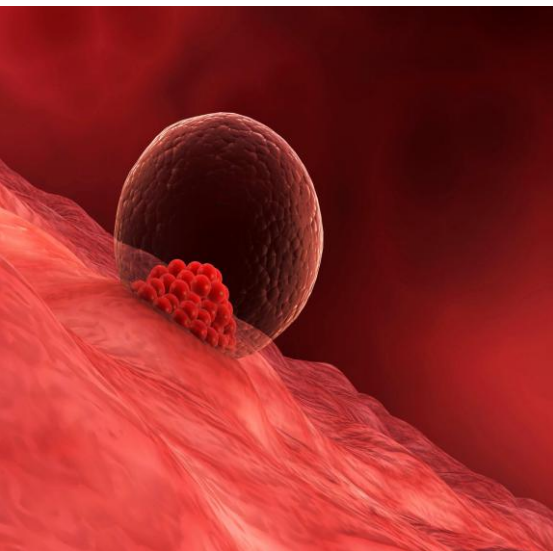




CENTER FOR
GENOMIC
MEDICINE

 **pERA**
OPTIMAL TIME FOR
ENDOMETRIAL RECEPTIVITY
by NCGM



Endometrium : The inner lining of the uterus performing important functions, both throughout the menstrual cycle and during pregnancy.

Endometrial Receptivity : A temporally distinct set of variables that causes the endometrium to be receptive to embryonic implantation.

Window of Implantation (Woi) : The time when the endometrium is most receptive to blastocyst implantation.

WHAT IS OpERA? (OPTIMAL TIME FOR ENDOMETRIAL RECEPTIVITY ANALYSIS)

- OpERA is the molecular tool based on Next Generation Sequencing (NGS) that has allowed to identify the transcriptomic signature of the window of implantation (WOI) after 5 days of progesterone exposure or LH surge +7 days, the time at which the endometrium is classically ready for embryo implantation.
- It identifies an individual woman's specific customized embryo transfer timing, allowing the embryo transfer to be coordinated within the small time frame of implantation.
- In a stimulated frozen embryo transfer cycle, an endometrial biopsy will be collected after optimal preparation. OpERA's customized predictor analyses the data and classifies the endometrium as Receptive or Non-Receptive.
- Receptive results show that the biopsy was performed at the ideal transfer time to allow for implantation. Non-Receptive result means that the endometrium is either pre- or post-receptive, which will be predicted.
- The ideal personalized Woi will be determined by the OpERA model.

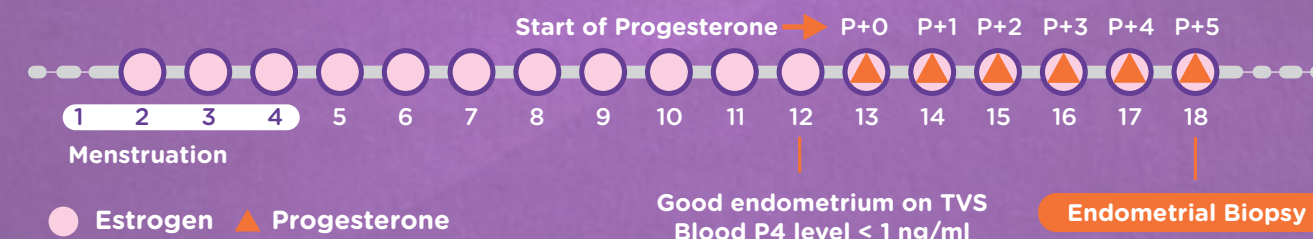
WHO WILL BE BENEFITTED:

- Women with repeated implantation failure
- Women having failed IVF cycles despite the transfer of good quality embryos
- Women experiencing pregnancy loss
- Women with limited embryos

ADVANTAGES OF THE OpERA TEST

- The OpERA test has been demonstrated to be extremely sensitive and specific in detecting genomic expression patterns associated with receptivity.
- It enables the detection of the customized window of implantation before the patient begins utilizing assisted reproduction procedures.
- This approach is more sensitive than the traditional method of endometrial dating, which is based on histological criteria and has been shown to be ineffective in distinguishing between fertile and infertile patients.

HOW TO PERFORM



Undergoing OpERA does not guarantee a successful implantation, as there are other factors that are involved but it eliminates the possibility of endometrial receptivity as a reason for implantation failure

METHODOLOGY/ HOW OPERA WORKS

1



After Biopsy collection, transfer tissue in cryotube. Shake vigorously for 10-15 seconds.

2



Tissue in cryotube should not exceed 1/3rd of total volume of cryotube.

3



Label the tube & store at 4° C for at least 4 hours.

4



Ship the kit at room temperature & inform the lab.

5



The sample kit shipped should be accompanied with the requisition & consent form.

WHAT CAN YOU UNDERSTAND FROM OPERA'S REPORT?

- **Receptive: The Most Appropriate Time to Implant**
A Receptive result on the report indicates that the time of the tissue biopsy was the optimal time for embryo transfer and that the same conditions and timing can be used during their subsequent treatment cycles for the most favorable personalized embryo transfer conditions.
- **Non-receptive: Change the Implantation Time**
A Non-Receptive (pre- or post-receptive) result on your report indicates that the time of the tissue biopsy was not in the optimal time period for embryo transfer and that the timing of embryo transfer for the patient should be altered according to the result in order to increase the chances of a successful implantation.

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