

MIRROR VISMAYA



VISION

To provide comprehensive and customised health services of global standards to all women with particular emphasis to high risk pregnancies.

MISSION

To provide 'Quality Service' with 'Honest Practice' that is both ethical and evidence based.

Mirror Health is a radical and earnest women's health center with a strong drive to provide high end health care services for women.

Established in April 2016, Mirror Health is currently expanding to attain it's fullest potential of comprehensive health care solutions for women with a primary emphasis on high risk pregnancy care. Many of the modest gains in women's health realised in recent decades are now threatened or have been reversed, thus compelling instant explications with honest evidence based clinical practices.

ADMIN TEAM



Dr Govindarajan M.J
MBBS, MD (Radio Diagnosis), MBA (Health Care)
Chief Consultant Radiologist
Director



Dr Revathi S Rajan
MBBS, DGO, DNB(OBG), FFMM (RGUHS)
Chief Consultant (Maternal Fetal Medicine)
Managing Director



D.Srikanth
B.E, ISE
General Manager


MIRROR-HEALTH NEWS

This newsletter provides health information and insights from Mirror Health Experts, featuring information on common health topics and interests, health tips, patient stories, updates in medical research and clinical trials, upcoming events, health recipes and much more!!



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MIRROR HEALTH

CONSULTANT PANEL

- **Dr Govindarajan M.J**
MBBS, MD (Radio Diagnosis), MBA (Health Care)
Chief Consultant Radiologist
Director
- **Dr Revathi S Rajan**
MBBS, DGO, DNB(OBG), FFMM (RGUHS)
Chief Consultant (Maternal Fetal Medicine)
Managing Director
- **Dr Deepika. K**
MBBS, MS, FRM(RGUHS)
Consultant (Reproductive Medicine)
- **Dr Shashikala. T**
MBBS, DGO, FIGE, FRM
Consultant (Gynaec Endoscopy)
- **Dr Lokesh T.R**
MBBS, DCH, DNB
Consultant (Paediatrician)
- **Dr Sapna. T**
MBBS, MS
General Surgeon
- **Dr Binduraj**
MBBS, MD
General Physician
- **Dr Nandakishore S.K**
MBBS, MS, DNB (Urology and
Andrology),
MD (Fellow in Endourology)
Consultant (Urologist / Andrologist)
- **Mrs. Shubha T.G**
M.Sc., Diploma in Clinical trials,
Nutritionist
- **D. Srikanth**
B.E, ISE
General Manager

OUR SERVICES

- **WOMAN'S HEALTH
CONSULTATION SERVICES**
High Risk Pregnancy Care
Inutero Fetal Programming
Infertility Care
Gynaecological Care
Adoloscent Health Care
Premarital and Preconceptual
Counselling
Comprehensive Breast Care
Menopausal and Postmenopausal
Care
Nutrition and Lifestyle
Consultation
- **IMAGING AND
INTERVENTIONAL SERVICES**
Woman's Imaging
Ultrasound, Doppler
Tele Radiology Services
Second Opinion on Imaging in
Cancer Patients
Image guided procedures -
Aspirations, Biopsy, Drainage
Varicose Vein Management (RFA,
Laser Ablation, Sclerotherapy)
- **NEWBORN & PAEDIATRIC CARE**
LABORATORY SERVICES
PHARMACY SERVICES
**CANCER SCREENING CONSULTATION,
EXPERT TELECONSULTATION AND VIDEO
CONFERENCE CONSULTATION SERVICES**

SCREENING FOR PRE-ECLAMPSIA (PE) IN THE FIRST TRIMESTER

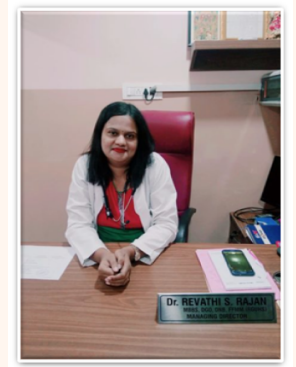
Dr Revathi S Rajan, Chief Consultant (Maternal Fetal Medicine) & Managing Director, Mirror Health, Bengaluru

Introduction/Relevance/Evidence

'Pre-eclampsia' is a multisystem disorder with origin in early pregnancy. Its pathophysiology is complex and involves maternal/fetal and placental factors. 'Pre-eclampsia' is the second leading cause of maternal mortality worldwide. The incidence is about 5 to 8% globally; though it ranges between 8 to 10% in India.

Atypical presentations would result in a clinical dilemma for diagnosis.

The conventional definitions based on high blood pressure and proteinuria no longer help map the disease precisely. This has triggered extensive research in the field of angiogenic biomarkers that map the root cause of disease (maldevelopment of placental vasculature resulting in decreased perfusion and consequent hypoxia; contributing to endothelial damage and hypertension).



Identifying early onset pre-eclampsia much before the onset of clinical is the need of the hour disease to allow for risk modulation, as this kind of disease could warrant a preterm delivery with serious maternal and perinatal consequences.

Screening for pre-eclampsia has now assumed paramount significance and when well implemented could add value to channelize the available resources for surveillance and monitoring of the 'at risk' groups.

The US Preventive Services Task Force-(USPSTF) has found adequate evidence that screening for PE resulted in substantial benefit to both the mothers and the newborn based on the MAGPIE and the HYPITAT trials.(1)

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Website: mirrorhealth.in; Email: mirrorhealth16@gmail.com; mirrorhealth2016@gmail.com

Method of Screening- The Rationale

Pre-eclampsia is heterogenous in terms of its causation and presentation. Hence the disease could be reflected better with two or more biomarkers associated with different pathological processes when added on to patient characteristics.

Figure 1.0.1: Screening Algorithm for PE (adopted by FOGSI for HDP Protocols -2018)

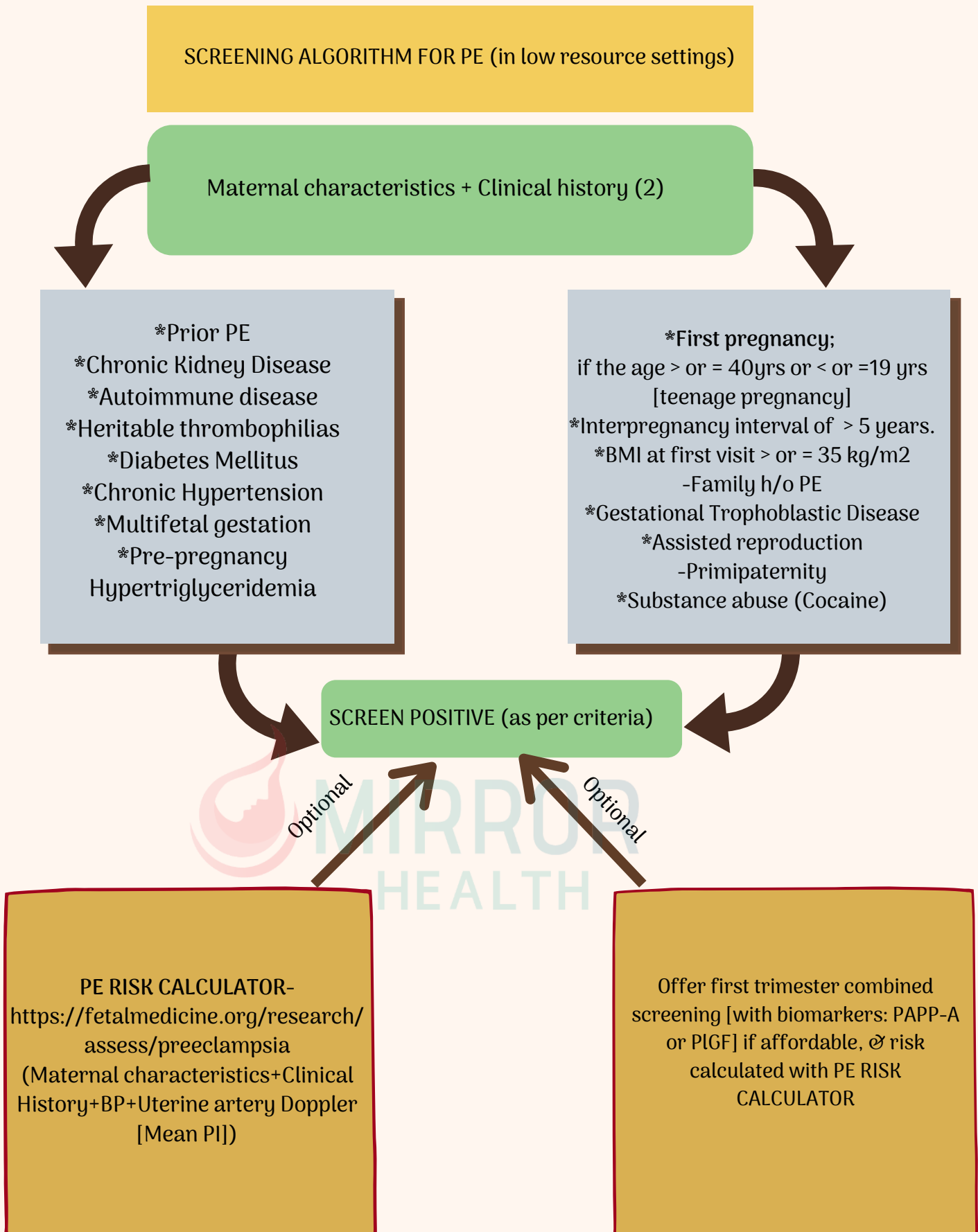


Figure 1.0.2: Monitoring and Surveillance for PE

SCREEN POSITIVE (as per criteria)

ASPIRIN (150mg O.D.) – Started between before 16 weeks of gestation, to be taken at night along with Calcium (1gm) supplementation daily. (Both until delivery)(2, 4)

MONITORING / SURVEILLANCE FOR PE

Measurement of BP and Proteinuria

BLOOD PRESSURE(BP)

Measured using a mercury sphygmomanometer, calibrated aneroid device, or an automated BP device [which is validated], in sitting position with the patient's arm at the level of the right atrium of the heart.

-Measured using an appropriately sized cuff [1.5 times the circumference of the arm to be included]

-Mean Arterial Pressure (MAP) is more reliable and has to be measured by the formula:

$$\frac{\text{Systolic BP} + 2 \text{ times Diastolic BP}}{3}$$

-BP from each arm has to be measured twice and an average of all 4 readings must be calculated and MAP has to be derived by the above formula. (2)

PROTEINURIA

-Use of a urine protein dipstick [automated reagent strip] reading device is recommended.

-Significant proteinuria is defined as greater than 300mg protein in 24 hour urine collection [corresponds to 1+ dipstick]

-When feasible, more definitive tests are indicated that include: urinary protein to creatinine ratio (>0.3mg/mmol) or 24 hour urinary protein collection (>300mg/dL).(1)

-However 'No proteinuria' does not rule out PE. (4)



MIRROR
HEALTH

Summary

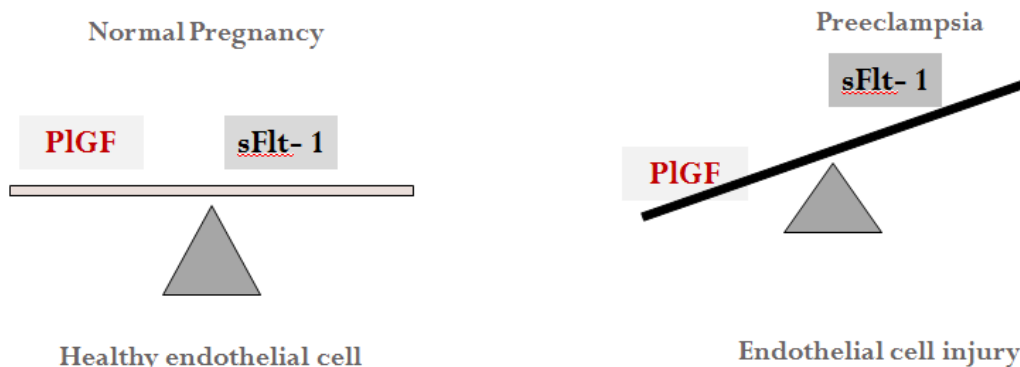
- Pre-eclampsia is a complex heterogenous disease, making its prediction difficult which should be based on multiparametric approaches.
- Maternal characteristics and clinical history is the mainstay for screening especially in low resource countries.
- Screening for PE with a combination of biomarkers and uterine artery doppler performs much better than other methods, but this may have limitations in terms of high cost. This could be used in the high risk population after extensive counselling.
- Role of biomarkers for prediction of PE and adverse maternal/perinatal outcomes needs to be researched in future through large multicentric trials.

References

1. US Preventive Services Task Force –Recommendation Statement. JAMA. (2017); 317(16):1661-1667.
2. Hypertensive Disorders of Pregnancy (HDP) – FOGSI Guidelines (2018).
3. D. L. Rolnik, D. Wright, L. C. Y. Poon, A. Syngelaki, N. O'Gorman, C. de Paco Matallana et al. ASPRE trial: Performance of screening for preterm pre-eclampsia. Ultrasound of Obstetrics & Gynecology, (2017);
4. The classification, diagnosis and management of the hypertensive disorders in pregnancy: A revised statement from the ISSHP (2018)

BIOMARKERS

- **Angiogenic & Antiangiogenic Markers**



'The Hypertension in Pregnancy Clinic' at Mirror Health uses Angiogenic Biomarkers for prediction and prognostication of Preeclampsia that has substantially improved maternal and perinatal outcomes.

Contact us for appointments. We will be happy to help you in customizing care plans.

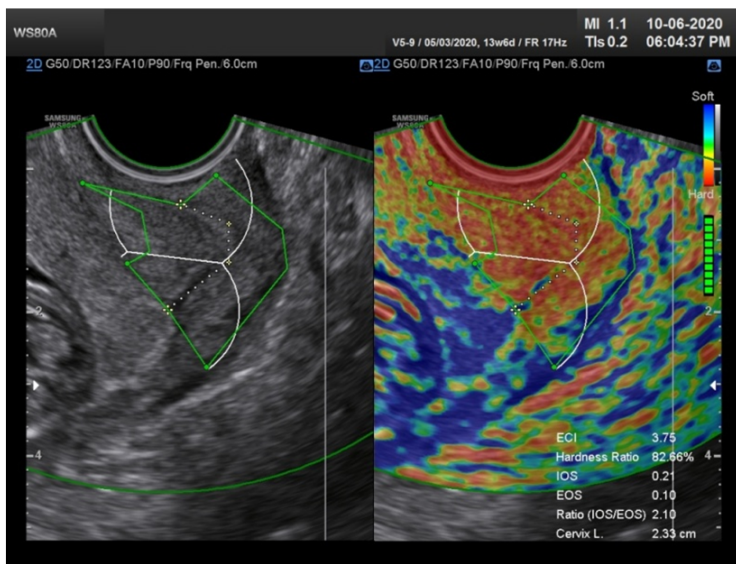
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CERVICAL ELASTOGRAPHY

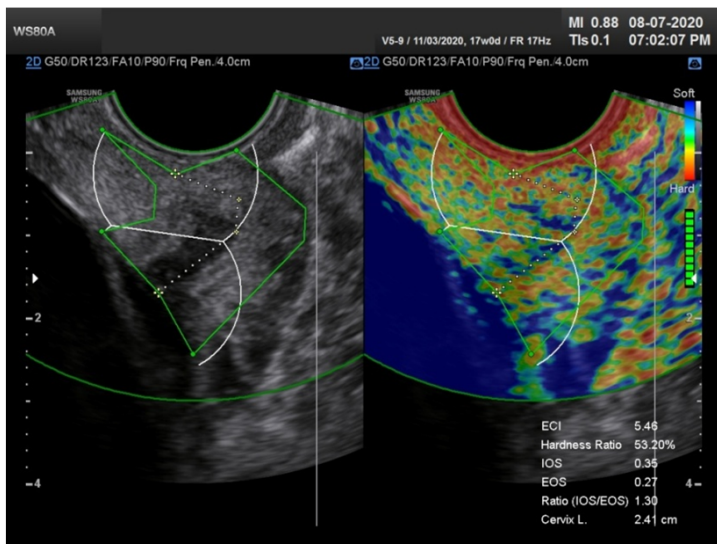
MBBS, MD (Radio Diagnosis), MBA (Health Care) Chief Consultant Radiologist,
Director Mirror Health, Bengaluru



- A new tool to assess the softness/hardness of the uterine cervix (mouth of the womb)
 - *A cutting edge technology introduced for the first time in Bengaluru, (India) that can significantly support clinical decision making in an effort to avert preterm birth/ mid-trimester abortion.*
 - Colour coded images provide good idea about the consistency.
 - Quantitative assessment using highly sophisticated application provides for accurate evaluation and interpretation.
 - A soft cervix can lead to premature labour or mid trimester abortion.
- The knowledge regarding consistency of the cervix in the early part of pregnancy can help the doctor to intervene appropriately leading to improved pregnancy outcomes.



13 weeks pregnant– hard cervix – ECI 3.75 and hardness ratio – 82.7%



17 weeks pregnant– soft cervix – ECI 5.46 and hardness ratio – 53.2%

This suggests imminent abortion

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MIRROR ACADEMIA



Dr Revathi S Rajan

Dr Meghana Sreenath

Mirror Academia is involved in collaborative research that is based on '**Preeclampsia**' (a serious form of hypertension in pregnancy).

Dr Revathi S Rajan is the primary researcher supported by research assistants Dr Meghana Sreenath and Mr D.Srikanth. Currently the research team at Mirror Health has been working on the Role of Angiogenic Biomarkers (sFlt-1 / PlGF) in the prediction and prognostication of preeclampsia.

The team is also working for a collaboration with Molecular Biologists from reputed research centres in Bengaluru in an attempt for quick and easy diagnosis of Preeclampsia.

Dr Govindarajan M.J has also been presenting talks based on Onco-Imaging to a pan India audience through webinars disseminating latest scientific information to one and all.



Dr Govindarajan M.J

Mr D. Srikanth

Mirror Health hosts **THE SOCIETY FOR MATERNAL FETAL MEDICINE (INDIA);SMFM(I)**
This society encompasses like-minded clinicians who are involved in the management of high risk pregnancies - **Website: <http://smfmi.com/>**

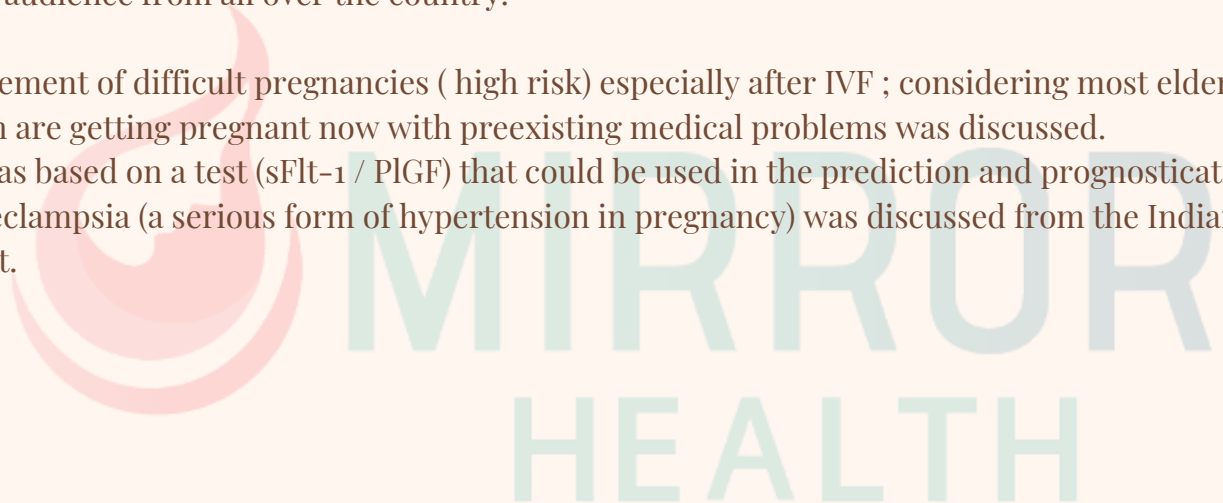


MIRROR WEBINARS - 1

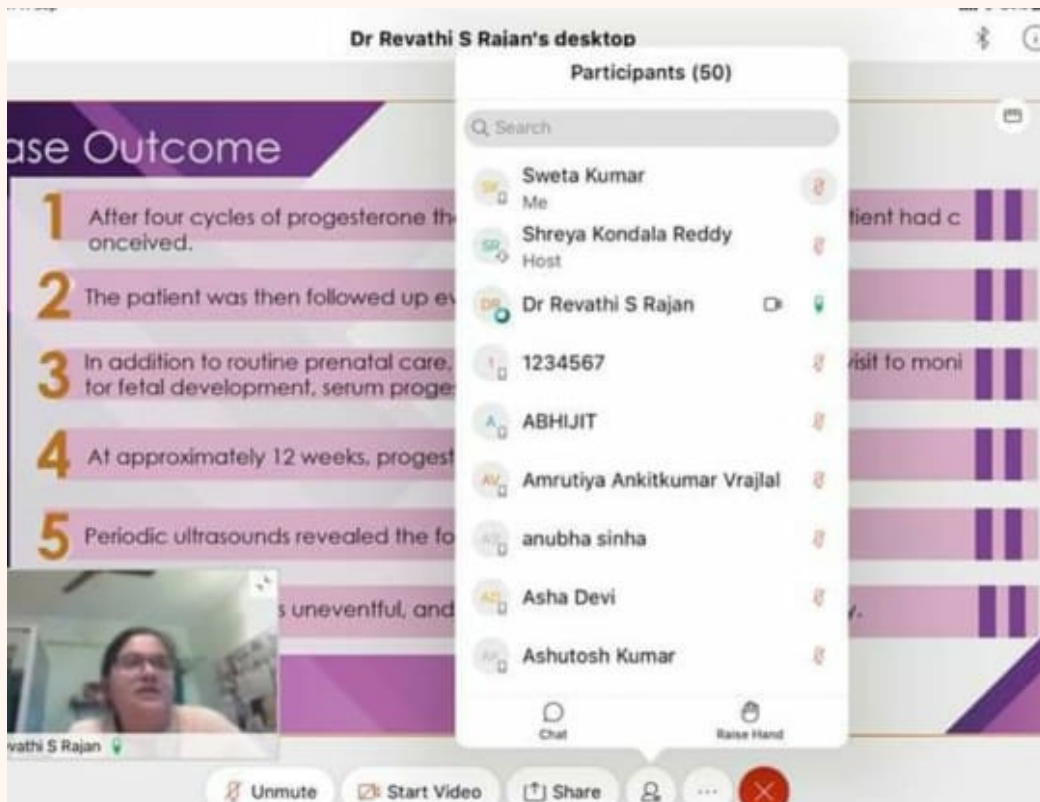


A webinar (coordinated by Roche India) on the clinical utility of biomarkers in averting adverse maternal and fetal outcomes to a chain of IVF centers (INDIRA IVF) pan India (held on 07-08 2020) from MIRROR Conference Room . Dr Revathi S Rajan was the key speaker that included a virtual audience from all over the country.

Management of difficult pregnancies (high risk) especially after IVF ; considering most elderly women are getting pregnant now with preexisting medical problems was discussed. This was based on a test (sFlt-1 / PlGF) that could be used in the prediction and prognostication of preeclampsia (a serious form of hypertension in pregnancy) was discussed from the Indian context.

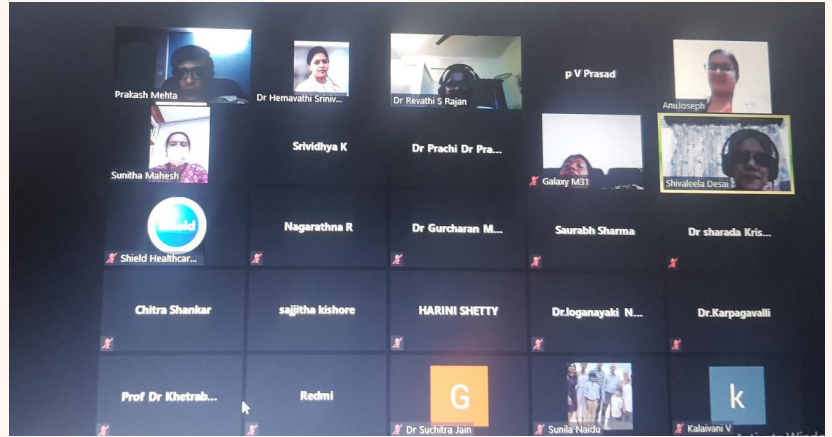
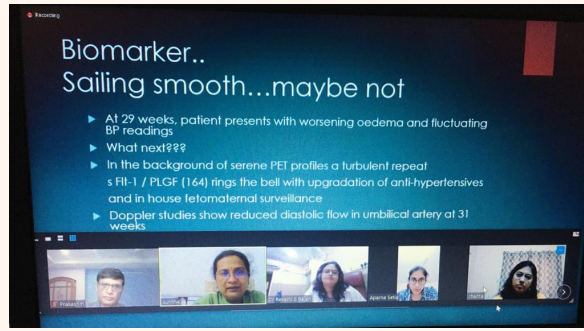


MIRROR WEBINARS - 2



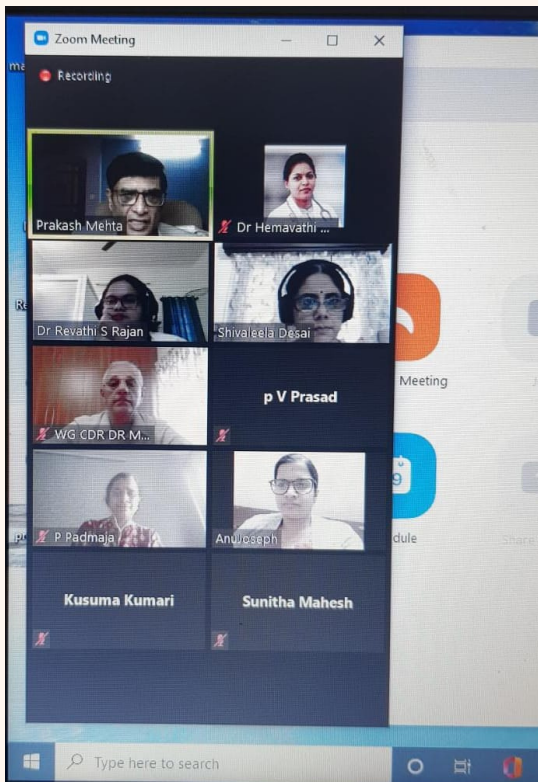
Dr Revathi S Rajan was the key speaker for a webinar based on 'Management of Luteal Phase Defect and Periconceptional Challenges and Modifiable Risk factors - Evidence to Practice' (held on 11-9-2020) hosted by ABOTT - Women's Health Division. This catered to audience from all over India and was well appreciated.

SMFM(I) WEBINARS - 1 & 2



Dr Revathi S Rajan is the current Secretary for the SMFM(I) and participated in two LIVE webinars (held on 18-07-2020 and 16-09-2020) in collaboration with ANBAI (Association of National Board Accredited Institutions).

There were two such webinars and each of these were co-hosted by SRL(India) and Shield Healthcare respectively.



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GRADUATION DAY



Mirror celebrates 'New Moms with their little ones' on their **Graduation Day !!**



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MIRROR CELEBRATIONS

MIRROR HEALTH celebrates

APR 7

WORLD HEALTH DAY

Water & Fiber A Day, Walks on Fresh Air, Daily Life, Fruit, Fitness, Veggie tables

Stay Home; Stay Safe

MIRROR HEALTH

12th May

HAPPY INTERNATIONAL NURSES DAY

Thank you for all your hard work & unwavering compassion.

MIRROR HEALTH

Team Mirror Health with all its flora wishes you all on this occasion of World Environment Day today!!

5-JUNE-2020

We endorse the theme for 2020 - 'Time for Nature'

Spend more time with nature: Stay green, happy and healthy!!

"BE PREPARED BEFORE LIGHTENING STRIKES"

MIRROR HEALTH

World Preeclampsia Day

22nd May 2020

MIRROR HEALTH CELEBRATES YOGA

INTERNATIONAL YOGA DAY

21 JUNE 2020

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WOMEN'S HEALTH CAMP

Team Mirror conducted free health checks and also performed free testing of Haemoglobin percentage, GRBS and Body mass composition including testing for bone density.

A comprehensive consultation by Dr.Revathi S rajan (Obstetrician and Gynecologist/ MFM Specialist) added value to the participants.



**MARCH
INTERNATIONAL
WOMEN'S DAY
(HEALTH CAMP)**



The camp got in participants from in and around Basaweshwaranagar and lasted for 3days (2 hours each day). The participants extended good reviews about its conduct



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MIRROR HEALTH PREPARES TO HANDLE COVID-19



← TRIAGE AREA OUTSIDE THE CLINIC TO FACILITATE PATIENT STRATIFICATION



CONTACTLESS SANITIZATION
AT ENTRY →



← BODY TEMPERATURE CHECKS WITH
INFRA RED THERMOMETER

DECLARATION FORMS
INDICATING PURPOSE OF VISIT /
TRAVEL HISTORY →





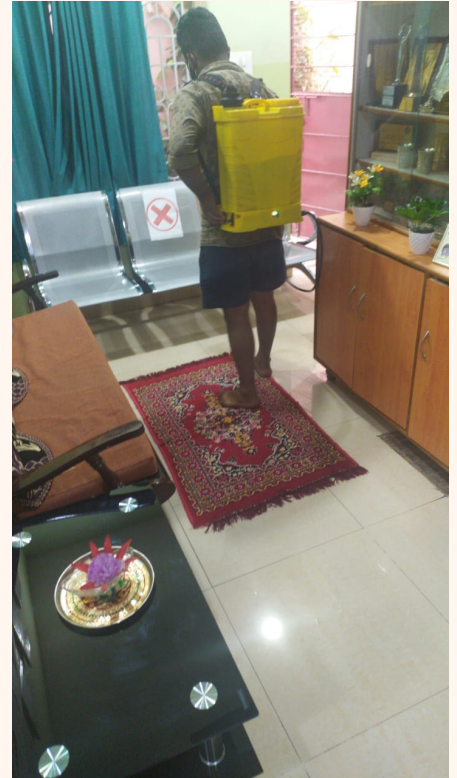
SOCIAL DISTANCING

- We facilitate speedy consultation/review process by meticulous scheduling of patient appointments
- We also insist to fetch **only one attender** with the patient.



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PERIODIC SANITIZATION OF THE PREMISES



CORONA WARRIORS

MIRROR
HEALTH



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Ms Rekha & Ms Akhila - Front Office Executives /Scan room Coordinators



**Mr Tom
Chief Pharmacist**

Sr Jessy - Staff Nurse



Mr Arjun - Assistant Pharmacist

Mirror Pharma



Sr Jayanthi

Sr Rekha

Staff Nurses

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Ms Nisha - Phlebotomist
Mirror Lab



Ms Bhagyamma



Ms Latha

Housekeeping



M



Mr Manjunath

Mr Dharam Singh

Support Staff

WS 80 Elite

This high end ultrasound machine is designed specifically for women's imaging. Features include -



- Complete range of obstetric scans
- 3D, 4D
- Cervical Elastography
- Breast ultrasound with elastography
- Colour Doppler
- Gynaecological Imaging of uterus and ovaries
- 3D of uterus
- Infertility Imaging - Follicular growth monitoring, Endometrial evaluation, VOCAL



celebrates



Contact us

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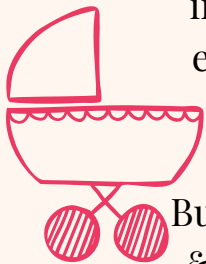
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Patients write...



It was a wonderful experience at Mirror Health over last 3 years. Tiring & dedicated efforts of Dr Revathi ensured we could have our second baby. The meticulous efforts put in by her combined with her in detail observations & follow ups can match to none. Her personal connect with each of her patients is commendable. She took extreme care that every minute detail was taken care throughout our journey without which this dream of ours would not have been possible. We thank her, Dr Govindarajan M.J and the entire team at Mirror Health for their whole hearted service. The sisters have been really kind & friendly. The front desk staff have also been very patient friendly. We would like to share our happiness with all of you and our sincere gratitude to Dr Revathi and team Mirror Health. Wish to continue this association as far as it could go. Happy to share the birth of our second daughter on 30-6-2020 !

We had almost given up of conceiving after trying for many years. We had a pleasant surprise when we figured out that we had conceived naturally. The initial happiness turned to fear & anxiety due to the past events where we encountered preeclampsia & gave birth to a pre mature baby who did not survive long.



But, Dr Revathi & her team have done a fantastic job so far in giving us hope & assurance. We are now relaxed & eager to deliver babies. Waiting for the day when we can come back and click pictures. Thanks for all that you have done in the past months.

I am very thankful to Dr Revathi S Rajan & Dr Govindarajan for helping me out for successful pregnancy.



Thank you so much for the difference you make in lives of your patients. Your kindness, sincere caring & concern make everything better and are a great encouragement. Thank you so very much for taking care of me and being so skilled at what you do. Every day of my life will be better because of you.

Great Work!!!

NOTE:

- *These are **feedbacks** from our **registered patients** which have been published **verbatim** after relevant consenting.*
- *Actual identity of the patient has been kept anonymous.*
- *Concerned documentation is under the ownership of **Mirror Health**.*

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