International Federation of Gynecology and Obstetrics
FIGO Mission

• The International Federation of Gynecology and Obstetrics (FIGO) is a unique organization, being the only international professional body that brings together 130 obstetrical and gynecological associations from all over the world.

• FIGO is dedicated to the improvement of women’s health and rights and to the reduction of disparities in health care available to women and newborns as well as to advancing the science and practice of obstetrics and gynecology. The organization pursues its mission through advocacy, programmatic activities, capacity strengthening of member associations and education and training.
INEQUITIES

10/100,000

1000/100,000
International Federation of Gynecology and Obstetrics
Working Group on Good Clinical Practice in Maternal-Fetal Medicine

Chair: G C Di Renzo

Expert members:
E Fonseca, Brasil
E Gratacos, Spain
S Hassan, USA
M Kurtser, Russia
F Malone, Ireland
S Nambiar, Malaysia
M Sierra, Mexico
K Nicolaides, UK
H Yang, China

Expert members ex officio:
C Fuchtnert, FIGO
M Hod, EAPM
GH Visser, SM Committee
E Castelazo, CBET Committee
L Cabero, WG GDM
V Berghella, SMFM
Y Ville, ISUOG
M Hanson, DOHaD, WG Nutrition
PP Mastroiacovo, Clearinghouse
JL Simpson, March of Dimes
D Bloomer, GLOWM
International Federation of Gynecology and Obstetrics
Working Group on the Challenges of Labour and Delivery

Chair: R Romero

Expert members:
D Farine, Canada
MT Gervasi, Italy
J M. Robson, Ireland
T Duan, China
S Rosales, Mexico
T Kimura, Japan
L Yeo, Korea-USA

Expert members ex officio:
C N Purandare, FIGO
G C Di Renzo, FIGO
M Stark, NESA
GH Visser, SM Committee
E Castelazo, CBET Committee
C Lees, RCOG
A Conde’ Agudelo, NIH NICHD
D Bloomer, GLOWM
International Federation of Gynecology and Obstetrics
March of Dimes
Working Group on Preterm Birth Prevention

Chairs: J L Simpson
      G C Di Renzo
Expert members:
Ernesto Castelazo
Mary D’Alton
Eduardo Fonseca
Chris Howson
Bo Jacobsson
James Martin
Jane Norman
T Y Leung

Expert members ex officio:
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J Howse, March of Dimes
G Visser, SM Committee
D Bloomer, GLOWM
Jim Larson BCG
David Ferrero, BCG
Chair: M Hod

Expert members:
Mukesh Agarwal
Blami Dao
Gian Carlo Di Renzo
Hema Divakar
Eran Hadar
Anil Kapur

Expert members ex officio:
CN Purandare, FIGO
GH Visser, SM Committee
D Ayres do Campo, SM Comm
L Cabero, CBET Committee
D Bloomer, GLOWM
R Fabienke, Novo Nordisk
Good practice advice

- Folic acid supplementation
- Prediction and prevention of preterm birth
- Non invasive prenatal diagnosis and testing
Good practice advice

- Thyroid diseases in pregnancy
- MgSO4 use in obstetrics
- Appropriate use of ultrasound in pregnancy
- Hyperglycemia and pregnancy
Good practice advice
finalised in June 2016

• Aspirin Use in Pregnancy
• Iron deficiency anaemia
• Management of Twin Pregnancy
• Micronutrients in Pregnancy
Good practice advice
to be discussed on December 2016

• Intrauterine growth restriction
• Recurrent Miscarriage
• Prediction of pre eclampsia
Sneak peek at Aspirin in Pregnancy

- 21 systematic reviews since 1991
- PARIS collaboration IPD
59 trials (37,560 women)

- **17%** reduction in PRE ECLAMPSIA (46 trials, 32,891 \( RR \ 0.83 \) 95% CI 0.77-0.89, NNT 72)

- **8%** reduction in preterm birth (29 trials, 31,151 \( RR \ 0.92 \) 95% CI 0.88-0.97, NNT 72)

- **14%** reduction in fetal/neonatal deaths (40 trials, 33,098 \( RR \ 0.86 \), 95% CI 0.76-0.98, NNT 243)

- **10%** reduction in SGA babies (36 trials, 23,638 \( RR \ 0.90 \), 95% CI 0.83-0.98, NNT)
Antiplatelet agents for preventing pre eclampsia and its complications: A meta-analysis of individual patient data
Askie LM, Duley L, Henderson-Smart DJ, Stewart LA, PARIS collaborative group
Lancet 2007

• 32,217 women, 31 randomised controlled trials of pre eclampsia

• Antiplatelet agents vs controls
  – Relative risk of developing pre eclampsia 0.90 (95% CI 0.84-0.97)
  – Relative risk of delivery before 34 weeks 0.90 (95% CI 0.83-0.98)
  – Relative risk of serious adverse outcome 0.90 (95% CI 0.85-0.96)
  – NNT to prevent one case of serious adverse outcome : 67

• Antiplatelet agents had no significant effect on the risk of bleeding events for women or their babies
Aspirin versus placebo/no treatment

**PRE ECLAMPSIA**  
$0.71$ 95% CI 0.57-0.87

**Severe PRE ECLAMPSIA**  
$0.37$ 95% CI 0.23-0.61

**PRETERM BIRTH**  
$0.81$ 95% CI 0.75-0.88

**IUGR**  
$0.80$ 95% CI 0.71-0.90

**Placental abruption**  
$1.35$ 95% CI 1.05-1.73
34 RCTs of 11,384 pregnant women at risk of pre eclampsia, given aspirin or placebo

<table>
<thead>
<tr>
<th>OUTCOMES</th>
<th>Aspirin initiated before 16 weeks</th>
<th>Aspirin initiated after 16 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre eclampsia</td>
<td>RR 0.47 (95% CI 0.34-0.65)</td>
<td>RR 0.81 (95% CI 0.63-1.03)</td>
</tr>
<tr>
<td></td>
<td>9.3% vs 21.3% control</td>
<td>7.3% vs 8.1% control</td>
</tr>
<tr>
<td>Severe pre eclampsia</td>
<td>RR 0.09 (95% CI 0.02-0.37)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.7% vs 15% control</td>
<td></td>
</tr>
<tr>
<td>IUGR</td>
<td>RR 0.44 (95% CI 0.3-0.65)</td>
<td>RR 0.98 (95% CI 0.87-1.10)</td>
</tr>
<tr>
<td></td>
<td>7% vs 16.3% control</td>
<td>10.3% vs 10.5% control</td>
</tr>
<tr>
<td>Gestational hypertension</td>
<td>RR 0.62 (95% CI 0.45-0.84)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.7% vs 29.7% control</td>
<td></td>
</tr>
<tr>
<td>Preterm Birth</td>
<td>RR 0.22 (95% CI 0.10-0.49)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.5% vs 16.9% control</td>
<td></td>
</tr>
</tbody>
</table>
Compared 4 strategies  
No prophylaxis  
Prophylaxis according to ACOG  
Prophylaxis according to US Preventative Task Force  
Universal prophylaxis  

Costs associated with aspirin, preeclampsia, PTB, potential aspirin associated adverse affects  

Rate of preeclampsia  
4.1% no prophylaxis  
4.17% ACOG 0.35% (n=14,000)women receive LDA  
3.83% US PSTF  23.5% (n=940,000)women receive LDA  
3.81% universal  

US Preventative Service Task Force – saves $ 377.4 million in direct medical cost  
Universal - saves $ 365 million  

BOTH USPSTF and universal prophylaxis would reduces morbidity, save lives lower health costs
Assessment of risk for preeclampsia (PE)

This application allows estimation of risks of early-PE (delivery at <32 weeks gestation), preterm-PE (<37 weeks) and term-PE (≥37 weeks) by a combination of maternal factors and results of various biophysical and biochemical measurements made at different stages in pregnancy.

Risk calculation is provided for the gestational age blocks of 11+0 to 14+1, 19+0 to 24+6, 30+0 to 34+6 and 35+0 to 37+6 weeks. Please note that when using biophysical and biochemical markers the measurements should be obtained within the same gestational age block.

- Useful markers in the first trimester (11+0 to 14+1 weeks) are MAP, UTPI, PLGF and PAPP-A \(^1\), \(^2\).
- Useful markers in the second trimester (19+0 to 24+6 weeks) are MAP, UTPI, PLGF and SFLT \(^3\).
- Useful markers in the third trimester are MAP, UTPI, PLGF and SFLT \(^4\), \(^5\).
Maternal factors

**Maternal characteristics**
- Date of birth: __________ dd-mm-yyyy
- Height: __________ cm, __________ ft, __________ in
- Weight: __________ kg, __________ lbs
- Racial origin: __________
- Conception method: __________
- Smoking during pregnancy: ☐ Yes ☐ No
- Mother of the patient had PE: ☐ Yes ☐ No

**Pregnancy dating** (select one of the methods below)
- Fetal crown-rump length (45-84mm)
- Fetal head circumference (158-226mm)
- Manual (any gestation)

- Gestational age: __________ weeks
- Date of measurement: __________ dd-mm-yyyy

This application allows calculation of risks for PE based on maternal factors alone and in combination with any of the biomarkers. Biophysical and biochemical markers should be obtained within the same gestational age block (11\textsuperscript{th} to 14\textsuperscript{th}, 19\textsuperscript{th} to 24\textsuperscript{th}, 30\textsuperscript{th} to 34\textsuperscript{th}, 35\textsuperscript{th} to 37\textsuperscript{th} weeks).

**Medical history**
- ☐ Chronic hypertension
- ☐ Diabetes type I
- ☐ Diabetes type II
- ☐ Systemic lupus erythematosus
- ☐ Anti-phospholipid syndrome

**Obstetric history**
- ☐ Nulliparous (no previous pregnancies ≥24 weeks)
- ☐ Parous (at least one pregnancy ≥24 weeks)

**Biophysical measurements**

Useful markers for all three trimesters are MAP and mean UTP

<table>
<thead>
<tr>
<th>Date of measurement</th>
<th>Weight</th>
<th>MAP (mmHg)</th>
<th>Mean UTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________ dd-mm-yyyy</td>
<td>__________ kg, __________ lbs</td>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Biochemical measurements**

Useful markers in the first trimester are PLGF and PAPP-A and in the second and third trimesters are PLGF and SFLT

<table>
<thead>
<tr>
<th>Date of measurement</th>
<th>Weight</th>
<th>PLGF (MoM)</th>
<th>PAPP-A (MoM)</th>
<th>SFLT (MoM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________ dd-mm-yyyy</td>
<td>__________ kg, __________ lbs</td>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>
### Screening for Pre-eclampsia

<table>
<thead>
<tr>
<th>Modality</th>
<th>Detection rate PE/GH (%)</th>
<th>False positive rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>History alone</td>
<td>47/35</td>
<td>10</td>
</tr>
<tr>
<td>History + MAP 1st trimester</td>
<td>60/40</td>
<td>10</td>
</tr>
<tr>
<td>History + MAP + biochemistry (PLGF, PAPPa, s-Flt 1, send)</td>
<td>80(early)/64(late)/39</td>
<td>10</td>
</tr>
<tr>
<td>History + MAP + biochemistry + Dopplers UA 11-13 wks</td>
<td>88.5(early)/46.7(late)/35.3</td>
<td>10</td>
</tr>
</tbody>
</table>
Prospective double blind, placebo controlled randomised controlled trial
350 high risk women
Randomised to 6 groups – ASA 100 mg or placebo
   Timing : on awakening
       8 hours after awakening
       Bedtime
Intervention at 12-16 weeks continued to delivery
BP measured for 48 hours at baseline, every 4 weeks until 7 months, fortnightly-delivery

RESULTS
• No effect on BP when ingested on awakening
• Highly statistically significant reduction at 8 hours and more so at bedtime
• Significantly lower hazard ratios of composite of PE,PTB,IUGR, stillbirth
  \((0.35 \text{ 95\% CI 0.22-0.56 p<0.001})\)
Aspirin resistance: Clinically relevent in pregnancy?

- Concept of suboptimal platelet response to aspirin well documented in cardiovascular and stroke research in 20 years

- Suboptimal platelet response –
  - a biochemical failure to inhibit platelet activation in aspirin-treated individuals, assessed in the laboratory or with point-of-care tests.
  - described clinically as recurrence of ischaemic events despite aspirin treatment at the recommended dose.

- Reported prevalence 5-65% depending on population studied
Obstetric studies looking at resistance


Aspirin resistance demonstrated in 29-36% of participants
• Caron et al: J Obstet Gynaecol Can 2009, 31:1022-7
• ASPIRIN RESISTANCE
  • 30% at 81 mg
  • 10% at 121mg
  • 5% at 160 mg
Good Practice Advice

• All women should be assessed in the first trimester through history and mean arterial blood pressure for their risk of developing early pre eclampsia < 34 weeks. Additional tests for screening such as uterine artery Doppler between 11 – 13 weeks and biochemistry can be undertaken to improve sensitivity of screening where available.

• Low Dose Aspirin has been found to reduce the risk of early pre eclampsia, intrauterine growth restriction and preterm birth by improving disordered placentation

• Women who are deemed to be high risk should be offered Low Dose Aspirin (75-150mg) from 12 weeks onwards and before 16 weeks where possible to achieve its intended protection until 28 weeks

• Aspirin should be prescribed in the evening as evidence supports better efficacy during this time
• Monitoring of platelet levels or bleeding time on aspirin therapy is not necessary unless the patient develops unexplained bruising or bleeding that may require investigation. Aspirin should be stopped in these circumstances.

• Enteric coated preparations delay absorption and should only be considered in women who require this therapy with a history of gastric ulcers.
Good Practice Advice

• Mode of delivery, timing of delivery and analgesia requirements should not be influenced by administration of aspirin but by the clinical indications.

• LDA is not associated with increased adverse outcome or bleeding tendencies in mother or neonate.
CONCLUSIONS
FOCUS ON GLOBAL STRATEGIES

AMELIORATE OUR PROFESSION OVERCOMING THE LIMITS OF NATIONAL SOCIETIES

GUIDELINES: THE BEST PRACTICE ADVICE

GLOBAL STRATEGIES FOR:

PRETERM BIRTH PREVENTION

NON COMMUNICABLE DISEASES

PREVENTING EXPOSURE TO TOXIC CHEMICALS
FIGHTING THE INEQUITY

Gathering data on maternal mortality and maternal health is notoriously difficult.

However, one thing is clear from all the statistics: although maternal and perinatal mortality and morbidity is falling globally, the perspectives for women-infants in poor resources countries are much worst than for those in industrialised countries.
Access to care, Education/Counseling, Preventive tools, Risk factors/Markers Implementation, Best Practice, Healthcare Systems/Insurance Coverage
Pregnancy offers a window of opportunity to provide maternal care services to mother and offspring.

Reduce traditional maternal and perinatal morbidity and mortality indicators.

Address intergenerational prevention of preterm birth and NCDs, such as diabetes, hypertension, cardiovascular disease, and stroke.
On Sept 2015 the UN General Assembly adopted the “Agenda 2030: Transforming our World”, with a consensus of the World Government Community - introduced **17 sustainable development goals** SDGs.

Many of the suggested SDG’s have Environmental and Reproductive health embedded in their goals.
It is a sheer co-incidence that September 2015 witnessed the 20th anniversary of the Beijing World Conference on Women under the slogan -“Planet 50-50 by 2030: Set it up for Gender Equality”.

‘The Agenda 2030; Transforming our world’ or Planet 50-50 by 2030’ i.e. SDGs will not materialise without the contribution of 50% of its population i.e. women - This can be achieved only with gender equality, equal education and employment opportunities + providing sexual reproductive health and rights.

Reproductive Health and Rights will not be complete unless we improve environmental Health

FIGO was not and will not be a passive observer to bring about this required change and will act to make these dreams real for women.