WHO Antenatal Care Guidelines: Background and Approach

A. Metin Gülmezoglu, MD PhD, Özge Tunçalp, MD PhD

Department of Reproductive Health and Research
Antenatal Care

- Continuum of quality care

- Antenatal period:
  - Health promotion
  - Disease prevention
  - Early detection and treatment for complications
  - Birth preparedness
  - Complication readiness
WHO ANC Model – 1

- Specific evidence-based interventions for all women
- Carried out at four critical times
- Focused Antenatal Care Model (FANC)
WHO ANC Model – 2

- Two groups of women
  - Basic component: routine ANC
    - Intended for women who do not have evidence of complications/risk factors.
  - Special care: Women who need additional assessment/care etc.
    - The assumption: 25% of the women – special care
    - Follow specific guidelines
WHO ANC Model – 3

- Critical times:
  - 8-12 weeks
  - 24-26 weeks
  - 32 weeks
  - 36-38 weeks

- Goals and activities:
  - History
  - Examination
  - Screening and tests
  - Treatments
  - Preventive measures
  - Health promotion/counselling

### Activities

Rapid assessment and management for emergency signs, give appropriate treatment, and refer to hospital if needed.

<table>
<thead>
<tr>
<th>Goals</th>
<th>First visit 8-12 weeks</th>
<th>Second visit 24-26 weeks</th>
<th>Third visit 32 weeks</th>
<th>Fourth visit 36-38 weeks</th>
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</table>

### History (ask, check records)

- Assess significant symptoms. Take psychosocial, medical and obstetric history. Confirm pregnancy and calculate EDD. Classify all women (in some cases after test results).

### Examination (look, listen, feel)

- Complete general and obstetrical examination. BP

### Screening and tests

- Haemoglobin
- Syphilis
- HIV
- Proteins
- Blood/Rh group
- Bacteriuria

### Treatments

- Syphilis
- ARV if eligible
- Treat bacteriuria if indicated

### Preventive measures

- Tetanus toxoid
- Iron and folate

### Health education, advice, and counselling

- Self-care, alcohol and tobacco use, nutrition, safe sex, rest, sleeping under ITN, birth and emergency plan

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*Record all findings on a home-based record and/or an ANC record and plan for follow-up.

*Acronyms: EDD = estimated date of delivery; BP = blood pressure; PIH = pregnancy induced hypertension; ARV = antiretroviral drugs for HIV/AIDS; ECV = external cephalic version; IPTp = intermittent preventive treatment for malaria during pregnancy; ITN = insecticide treated bednet.

*Additional intervention for use in referral centres but not recommended as routine for resource-limited settings.

*Should not be given in first trimester; but if first visit occurs after 16 weeks, it can be given at first visit.

*Should also be prescribed as treatment if anaemia is diagnosed.
WHO ANC Model – 4

- Rwanda
- Kenya
- Mozambique
- Madagascar
- Ethiopia
- Uganda
- Thailand
- Philippines
- Cambodia
- China
- Papua New Guinea
- Afghanistan
- Djibouti
- Egypt
- Iraq
- Morocco
- Pakistan
- Somalia
- Sudan
- Yemen
- Armenia
- Kyrgyzstan
WHO ANC Model – 5

- Updated Cochrane review and secondary analysis of the WHO trial suggest fewer visits may be associated with increased fetal death

- Actual content of and the demand for antenatal care is at best variable in different settings
  - DHS analysis (41 countries): Quality coverage gaps for recommended elements of care for most countries, with the exception of BP measurement
New WHO ANC Guidelines

- To capture and examine the complex nature of the issues surrounding the ANC period within the context of health systems and continuum of care

- Technical Working Group
  - Work as part of "Adding content to contact (ACC)"
    - barriers to antenatal care and implications for care delivery, experiences with implementation of care
    - integration of antenatal care with other health services (HIV, malaria, syphilis programs, etc)
  - Technical Working Group Meeting (22-23 April)
Purpose of ANC

- Individual versus public health imperatives
  - Why women attend / do not attend ANC?
  - ANC as means of reducing adverse outcomes

Overarching Questions

- What are the evidence-based practices during ANC period for improving outcomes?

- How should these practices be delivered to improve outcomes?
Focus

- Essential core package of ANC that all women should receive

- With the flexibility to employ different options based on the context of the individual country
  - What is the content of the model/package?
  - Who provides care?
  - Where is the care provided?
  - How is the care provided to meet the needs of the users?
Work Streams

- Individual Interventions
- Antenatal testing
- Barriers and facilitators to access to and provision of care
- Large-scale programme evaluation
- Health system and community level interventions
- Modeling
Approach – 1

- DECIDE Framework
  - Developing and Evaluating Communication strategies to support Informed Decisions and practice based on Evidence
  - 5 year EU project that aims to support evidence based decision making
  - To help decision makers consider a range of relevant criteria when making decisions, including:
    - Resource use
    - Benefits + harms
    - Equity
    - Feasibility
    - Acceptability
<table>
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<tr>
<th>Work Streams</th>
<th>Methodology</th>
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</table>
| 1 Individual Interventions | • Effectiveness reviews  
|                      | • Systematic reviews  
|                      | • Diagnostic accuracy  
|                      | • Economic Evaluations  
|                      | ➢ GRADE – tool to assess certainty of evidence on effect  
| 2 Antenatal Testing   |                                                  |
## Approach – 3

<table>
<thead>
<tr>
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| 3 Barriers and facilitators to access to and provision of care | • Meta-synthesis of qualitative studies  
• Women  
• Providers  
➢ CERQual – newly developed tool to assess confidence in findings across qualitative studies |
## Approach – 4

<table>
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| **4** Programmes | • Analysis of selected large-scale country ANC programmes  
• Contextual and health system factors affecting the implementation  
• Mixed methods  
➢ SURE Framework: factors affecting the implementation of health interventions |
### Approach – 5

<table>
<thead>
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<th>Work Streams</th>
<th>Methodology</th>
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<tr>
<td><strong>5</strong> Health system level interventions</td>
<td>• Interventions to improve access to and provision of ANC services</td>
</tr>
<tr>
<td></td>
<td>o Reorganization of health services (i.e., integration)</td>
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<td></td>
<td>o Financial incentives</td>
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<tr>
<td></td>
<td>o Health worker focused interventions</td>
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<tr>
<td></td>
<td>• Systematic reviews</td>
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## Approach – 6

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| Modeling     | • Systems dynamics simulation model  
• Inform and facilitate the recommendations related to the models of antenatal care in terms of optimization of the set of practices and the timing of delivery of these services.  
• Provide flexibility to incorporate contextual factors |
### Different Dimensions – What and How

<table>
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<tr>
<th>HOW</th>
<th>WHAT</th>
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<tbody>
<tr>
<td>• Health system/community level interventions</td>
<td>• Tests</td>
</tr>
<tr>
<td>• Programmes</td>
<td>• Interventions</td>
</tr>
<tr>
<td>• Barriers/Facilitators • Qualitative</td>
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**MODELING**
### Critical Outcomes

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<tr>
<th>MATERNAL</th>
<th>FETAL/NEONATAL</th>
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<tbody>
<tr>
<td>Infections</td>
<td>Neonatal Infections</td>
</tr>
<tr>
<td>Anemia</td>
<td>Small for gestational age</td>
</tr>
<tr>
<td>Preeclampsia/Eclampsia</td>
<td>Preterm birth</td>
</tr>
<tr>
<td>Gestational DM</td>
<td>Low birth weight</td>
</tr>
<tr>
<td>Hypothyroidism</td>
<td>Congenital anomalies</td>
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- **MATERNAL Morbidity and Mortality**
- **FETAL/NEONATAL Morbidity and Mortality**

- Clinical end-points
- Lack of women-centred outcomes
Health determinants
(Biological, social, economic and environmental factors)

Health system

Health system level interventions to improve delivery of and access to ANC care

Healthcare during pregnancy

ANC
CORE CLINICAL PACKAGE
Additional Care

Delivery of Antenatal Care

Provision of timely, effective, safe health services within a women-centred approach

Women’s expectations and perceived quality of care

Utilization of services

Improved outcomes

Clinical outcomes
Women-centred outcomes
Utilization outcomes
Thank you!

- USAID

- Adding Content to Contact Project
  - Maternal Health Task Force, Harvard School of Public Health
  - Integrare ICS

WHO ANC Technical Working Group:

- Edgardo Abalos,
- Rifat Atun,
- Chompilas Chongsomchai,
- Virginia Diaz,
- Soo Downe,
- Kenny Finlayson,
- Claire Glenton,
- Ipek Gurol-Urganci,
- Sonja Henderson,
- Frances Kellie,
- Khalid Khan,
- Simon Lewin,
- Pisake Lumbiganon,
- Ewelina Rogozinska,
- Inger Scheel,
- Marita Sporstol,
- Matthews Mathai,
- Özge Tunçalp,
- A. Metin Gülmezoglu