Antenatal Care

Dr. Sonal Shah Parikh

Following is an example of which principle of PHC ?

- Anganwadi workers are giving HE to Antenatal mothers and counsel them for utilizing ANC services of PHC, while Staff nurse of PHC counsel PNC mother to get register under Anganwadi.

Principles of Primary Health Care

1. Equitable distribution
2. Intersectoral co ordination
3. Appropriate technology
4. Community Participation

- Primary health care services are under _____ ministry of GOI.

- Anganwadi services are under are under _____ ministry of GOI.

How many minimum antenatal visits are recommended?

How many desirable antenatal visits are recommended?

- Name the infectious diseases screened during antenatal period routinely.

Antenatal mothers

- What is the dosage schedule for TT ?
- From which gestational week IFA tab are given?
- What is the prophylactic dosage schedule for IFA?

- Name the Antenatal lab investigation carried out at PHC level.

- Name the Antenatal lab investigation carried out at sub centre level.

- Name the Urine pregnancy test kit Made by Government of India.

- Which two ministries are involved in designing MAMATA CARD?

Antenatal care

Antenatal care is the systemic supervision of women during pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus.

Objectives of Antenatal care

- Identify high risk mother
- Complication readiness
- Prophylaxis & Disease detection
- Counselling- Nutrition, Infant feeding , Family planning after delivery

Minimum 4 ANC visit

- **1st visit:** Registration + first antenatal check-up

  Earlier registration of all pregnancies

  preferably as soon as pregnancy is suspected—
  Within 12 weeks

- **2nd visit:** Between 14 and 26 weeks.
- **3rd visit:** Between 28 and 34 weeks.
- **4th visit:** Between 36 weeks and term.

Desirable/Optimum ANC visit

- Every monthly –Up to 6 months
- Every 15 days- 7^{th}-8^{th} Months
- Every weekly- 9 months onwards

This is for Uncomplicated gestation only
May be More if any risk is detected

Minimum 4 ANC visit

- **1st visit:** -W**ithin 12** weeks

- **2nd visit:** Between 14 and 26 weeks.
- **3rd visit:** Between 28 and 34 weeks.
- **4th visit:** Between 36 weeks and term.

- This 4 ANCs are only a minimum requirement and that more visits may be necessary, depending on the woman's condition and needs.
- It is advisable for the pregnant woman to visit the **MO at the PHC for an antenatal checkup during the period of 28–34 weeks (third visit).**

ANC has several components,

A. A few primary steps
B. Essential Components
C. Desirable components
D. Intervention
E. Counselling

Primary Steps

- Confirmation of Pregnancy
- Registration
- Issuing MAMATA CARD (Mother & Child Health card)
- Counselling
- IFA tab, TT injections

Primary Steps
Confirmation of Pregnancy

Any woman reproductive age group with a history of amenorrhoea or symptoms of pregnancy.>> conduct a urine examination using a pregnancy test kit

Primary Steps
Confirmation of Pregnancy

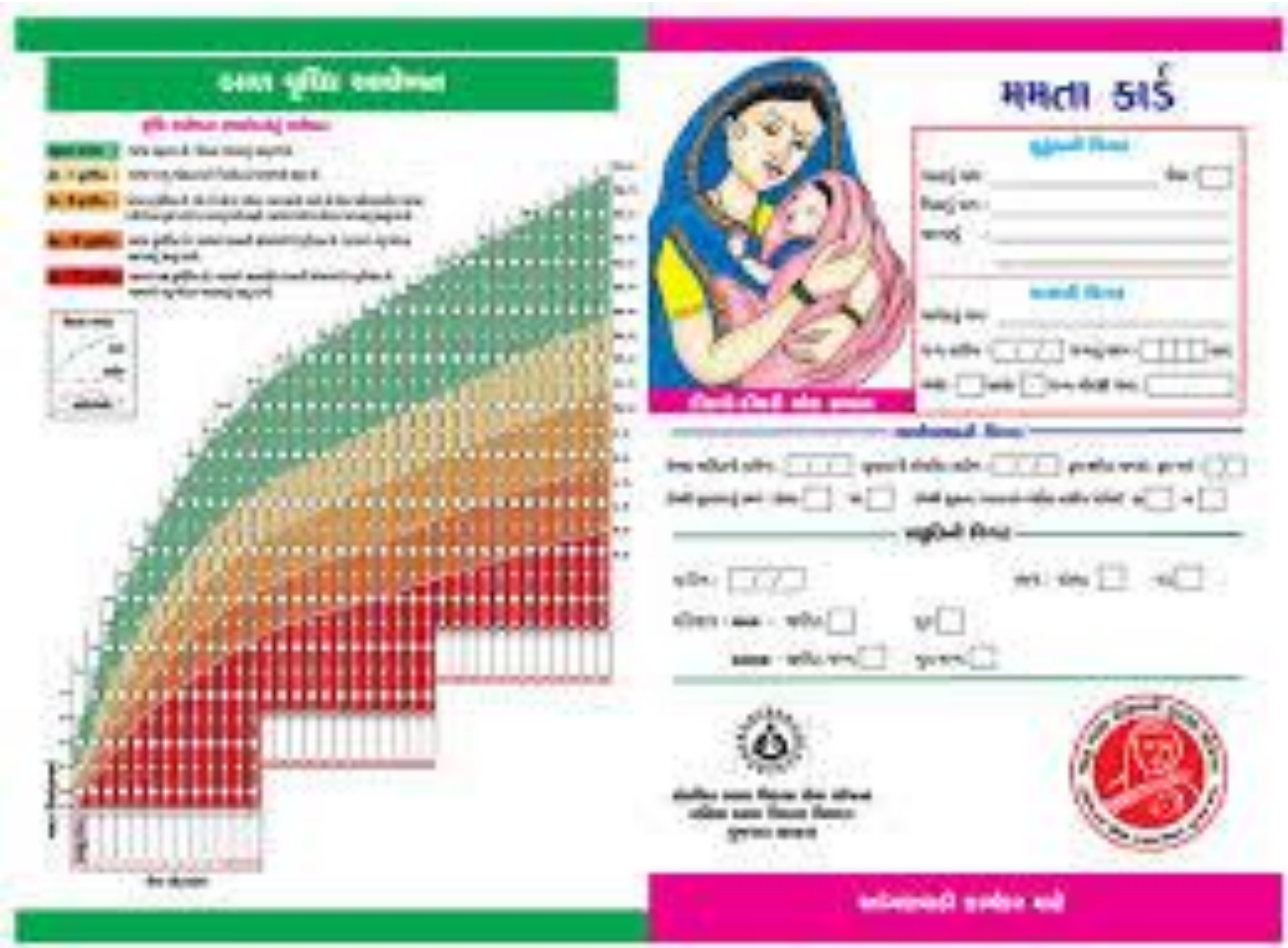
The GoI has made the '**Nischay**' pregnancy test kit available across the country.

Early registration

- Ensure early registration - first check-up must be conducted within 12 weeks of pregnancy
- Even if a woman comes for registration later in her pregnancy, she should be registered and care should be provided to her according to the gestational age.
- Every woman in the reproductive age group should be encouraged to visit her health provider if she believes she is pregnant.

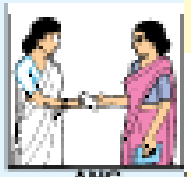
Primary steps

- Prepare Mother & Child Health Card- MAMATA CARD- should be handed over to the woman.
- She should be instructed to bring the record with her during all subsequent check-ups/visits and also to carry it along with her at the time of delivery.


મમતા કાર્ડ

Regular checkup is essential during pregnancy

Registration

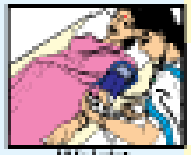


Register with the health centre in the first trimester.

ANC

Have at least 3 antenatal checkups, after registration

BP, Blood & Urine



Have blood pressure (BP) checked and blood and urine examined at each visit.

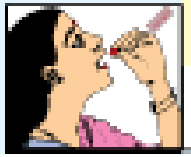
Weight

Have weight checkup at each visit. Gain at least 10-12 kg. during pregnancy. Gain at least 1kg every mth. during the last 6 mths. of pregnancy.

T.T.Injection

Take two T.T. injections. T.T.1 when pregnancy is confirmed and T.T.2 after 1 month. (Fill in the date)

Iron Tablets



Take one tablet of iron and folic acid a day for at least 3 months. Take at least 100 tablets. (Fill in quantity and date issued)


Integrated Child Development Services
National Rural Health Mission

Mother and Child Protection Card

Photograph of Mother & Child

Family Identification

Pregnancy Record

Birth Record

Regular checkup is essential during pregnancy

Care During Pregnancy

ANTENATAL CARE

મમતા દિવસ

દરેક બાળકને વિકાસનો અધિકાર છે

બાળકો

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

Mkak½ko †eyku

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

કાર્યક્રમ દરમ્યાની ખાતરીઓ

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

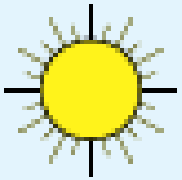
[illegible]

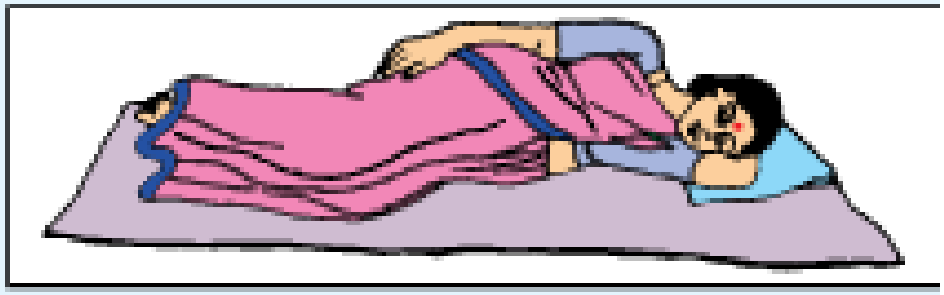
[illegible]

[illegible]

unicef

Care During Pregnancy





- Consume a variety of foods
- Consume more food – around ¼th times extra than the normal diet
- Consume SNP from the AWC regularly

- Take at least two hours of rest during the day. In addition to 8 hours of rest at night.
- Use only adequately iodised salt

Ensure nutrition counselling at every ANC

MAMATA CARD

- It has been developed jointly by the Ministry of Health and Family Welfare (MoHFW) and Ministry of Women and Child Development (MoWCD)
- Designed to ensure uniformity in record keeping and help the service provider to know the details of previous ANCs/PNCs both for routine and emergency care.
- The information contained in the card is also recorded in antenatal register of MPHW/ ANMs as per the Health Management Information System (HMIS) format.

- Inform the woman about the Janani Suraksha Yojana (JSY)/any other incentives offered by the state

ANC components,

A. A few primary steps

B. Essential Components

C. Desirable components

D. Counselling

E. Intervention

B-Essential components

Every antenatal check-up

I. Take the history.

II. Conduct a physical examination

III. Conduct abdominal Examination/palpation

IV. Carry out laboratory investigations

I. History-taking

- During the first visit, a detailed history of the woman needs to be taken to:

(i) Identify any current medical/surgical or obstetric condition

(ii) Identify whether there were complications during any previous pregnancy/confinement that may have a bearing on the present one.

What is the importance?

- Name
- Age
- Height
- Weight - Every ANC visit
- Blood Pressure- Every ANC visit

Menstrual history

- **Calculate the EDD**
- It is important to record the date of the LMP during the first visit as this helps to calculate the EDD and prepare a birth plan.

- Find EDD for – LMP

11 January 2017

15 June 2017

- What is LMP ?
- *=FIRST day of the woman's last menstrual period.*
- What kind of error can occurs in getting H/o LMP?

- What are the different ways to predict LMP if its not Known?

- LMP =*FIRST day of the woman's last menstrual period.*
- Make sure that the woman is not referring to the date of the first *missed period*, *i.e. the* date when menstruation was expected to occur the following month and failed to occur.

Ask for
Symptoms Normal/ Abnormal

- Nausea and vomiting
- Heartburn
- Constipation
- Increased frequency of urination
- Fever
- Persistent vomiting
- Abnormal vaginal discharge/itching
- Vaginal bleeding
- Palpitations, easy fatigability

Symptoms indicating discomfort

- Oedema
- Severe headache and blurring of vision
- Breathlessness at rest/on mild exertion
- Passing smaller amounts of urine and burning sensation during micturition
- Decreased or absent foetal movement
- Leaking of watery fluid per vaginum (P/V)

Write- G P A status

- Woman with 20 weeks amenorrhoea gave birth to 2 children out of which one child expired 6 hours after the birth.
- She had H/o an abortion

What could be the possibilities?

- Woman with 12 weeks amenorrhoea had history of 3 abortion, 1 stillbirth.

Obstetric history

- Recurrent early abortion, Post-abortion complications
- Hypertension, pre-eclampsia or eclampsia
- Breech or transverse presentation
- Obstructed labour, including dystocia
- Perineal injuries/tears
- PPH/APH
- Puerperal sepsis.
- caesarean sections/instrumental delivery/vaginal or breech delivery/manual removal of the placenta).
- Ask for a history of blood transfusions.

ANTENATAL CARE

OBSTETRIC COMPLICATION IN PREVIOUS PREGNANCY
(Please tick (✓) the relevant history)

A. APH ☐	B. Eclampsia ☐	C. PIH ☐
D. Anaemia ☐	E. Obstructed labor ☐	F. PPH ☐
G. LSCS ☐	H. Congenital anomaly in baby ☐	I. Others ☐

PAST HISTORY
(Please tick (✓) the box of the appropriate response/s)

A. Tuberculosis ☐	B. Hypertension ☐	C. Heart Disease ☐
D. Diabetes ☐	E. Asthma ☐	F. Others ☐

B-Essential components

Every antenatal check-up

I. Take the history.

II. **Conduct a physical examination**

III. Conduct abdominal Examination/palpation

IV. Carry out laboratory investigations

II. Physical examination

- This activity will be nearly the same during all the visits.
- The initial readings may be taken as a baseline with which the later readings are to be compared.

Breast examination

- Observe the size and shape of the nipples for the presence of inverted or flat nipples.
- Truly inverted nipples might create a problem in breastfeeding.

B-Essential components

Every antenatal check-up

I. Take the history.

II. Conduct a physical examination

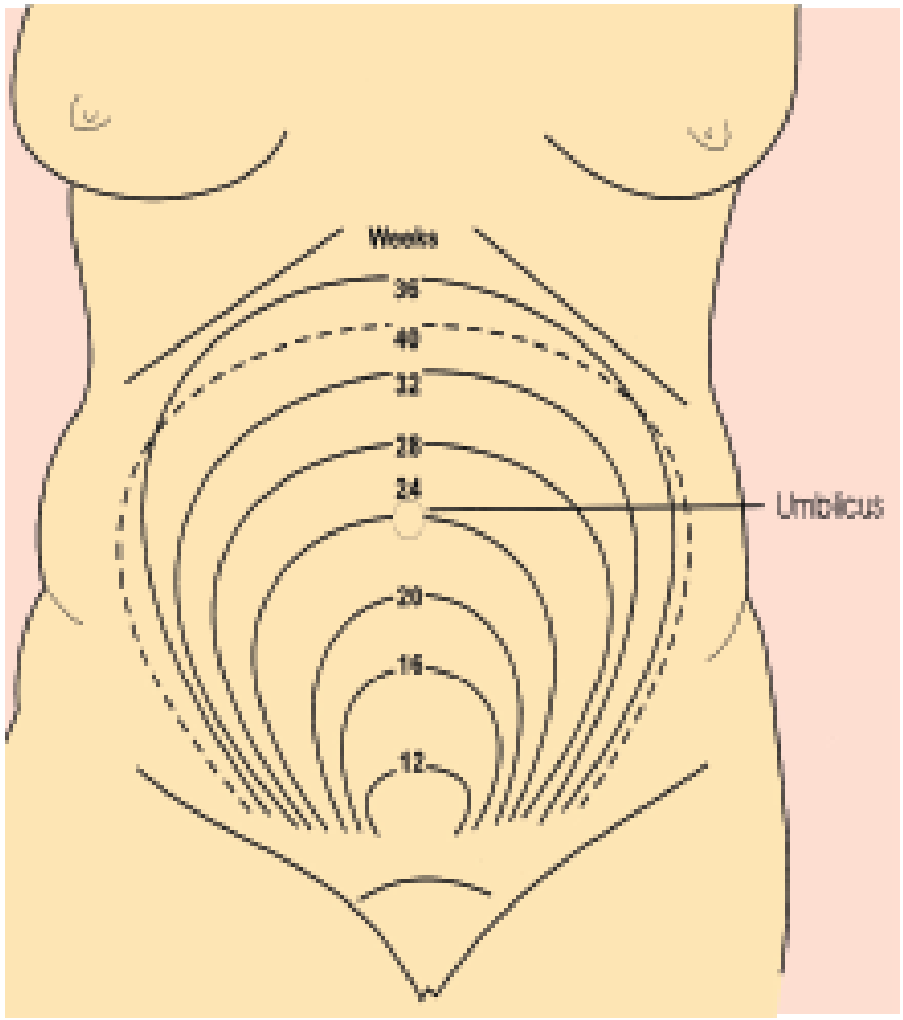
III. Conduct abdominal Examination/palpation

IV. Carry out laboratory investigations

Abdominal examination

- Examine the abdomen to monitor the progress of the pregnancy and foetal well-being and growth.

Measurement of fundal height



When as per fundal height is considered as abnormal?

- If there is any disparity between the fundal height and the gestational age as calculated from the LMP or if there is a difference of 3 cm or more in fundal height or
- if there is no growth compared to the previous check-up, then it should be considered significant.

Conditions in which Height of the uterus more than that indicated by the period of amenorrhea

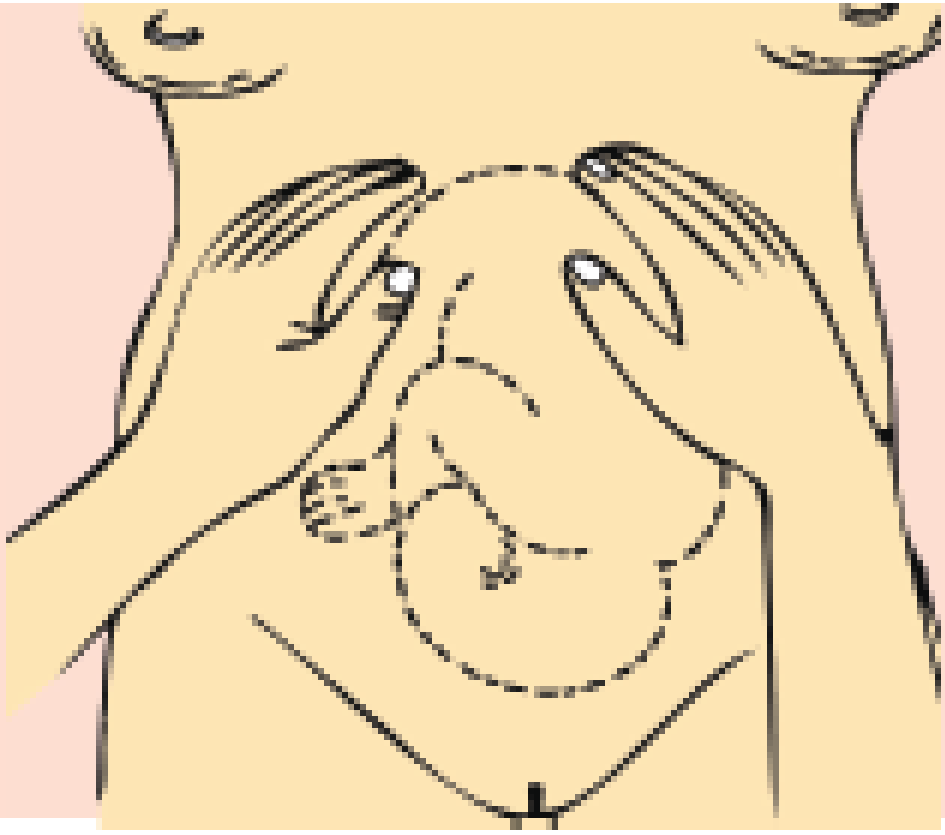
- Wrong date of LMP
- Full bladder
- Multiple pregnancy/large baby
- Polyhydramnios
- Hydrocephalus
- Hydatidiform mole

Height of the uterus less than that indicated by the period of amenorrhea

- Wrong date of LMP
- IUGR
- Missed abortion
- Intrauterine Death (IUD)
- Transverse lie

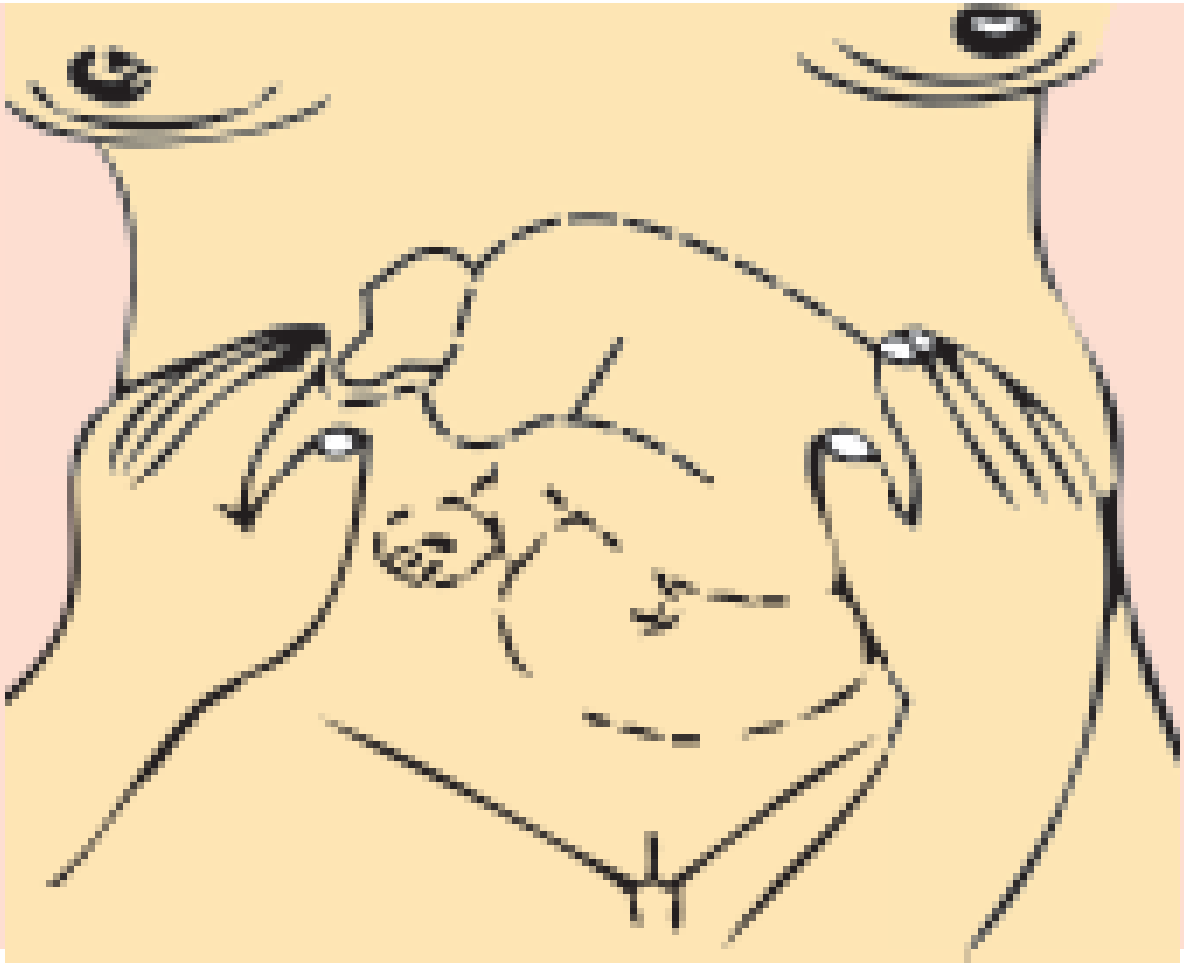
A. Fundal palpation/fundal grip

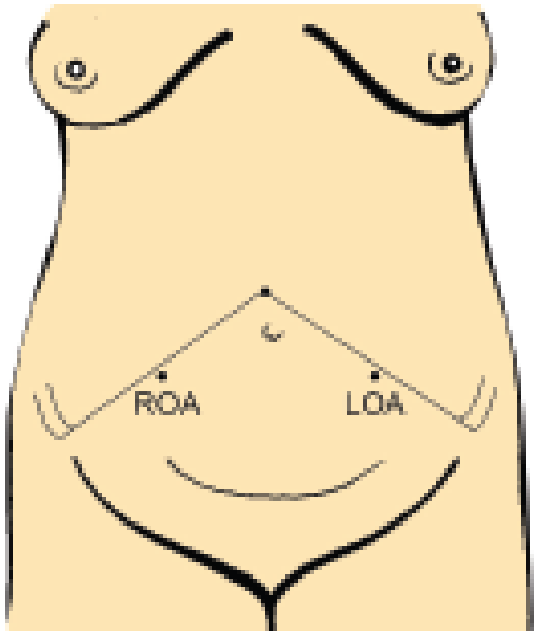
This manoeuver helps determine the lie and presentation of the foetus.



B. Lateral palpation/lateral grip

This manoeuver is used to locate the foetal back.





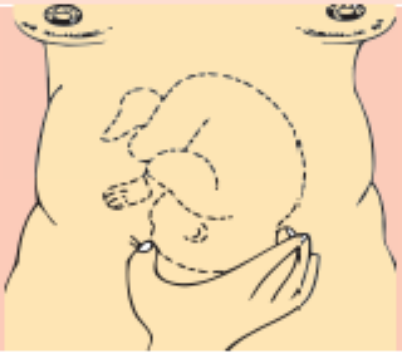
Note: ROA right occipitoanterior
LOA left occipitoanterior)

Foetal lie and presentation

- Importance of knowing palpation to determine foetal lie and presentation

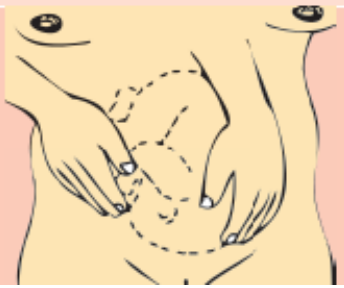
C. First pelvic grip/superficial pelvic grip

The third manoeuver must be performed gently. It helps to determine whether the head or the breech is present at the pelvic brim. If the head cannot be moved, it indicates that the head is engaged. In the case of a transverse lie, the third grip will be empty.



D. Second pelvic grip/deep pelvic grip

This manoeuver, in experienced hands, will be able to tell us about the degree of flexion of the head.



Foetal movements

- At every antenatal visit, the ANM should ask the pregnant woman about the foetal movements. Why????

Foetal movements

- Foetal movements are a reliable sign of foetal well-being. Foetal movements, also called **‘quickening’,** begin at around 18–22 weeks of pregnancy.
- They are felt earlier in a multigravida and later in a primigravida.
- Decreased movements may be an indication of foetal distress. >>need to be referred to the FRU.

EXAMINATION

General Condition	Heart	Lungs	Breasts

ANTENATAL VISITS

	1	2	3	4
Date				
Any complaints				
POG (Weeks)				
Weight (Kg)				
Pulse rate				
Blood pressure				
Pallor				
Oedema				
Jaundice				

ABDOMINAL EXAMINATION

Fundal height Weeks/cm				
Lie/Presentation				
Fetal movements	Normal/Reduced/ Absent	Normal/Reduced/ Absent	Normal/Reduced/ Absent	Normal/Reduced/ Absent
Fetal heart rate per minute				
P/V if done				

B-Essential components

Every antenatal check-up

I. Take the history.

II. Conduct a physical examination

III. Conduct abdominal Examination/palpation

IV. **Carry out laboratory investigations**

Laboratory investigations

III. Laboratory investigations

1. Pregnancy detection test
2. Haemoglobin estimation
3. Urine test -sugar and proteins
4. Rapid malaria test

At the Sub Centre

5. Blood group, including Rh factor
6. VDRL/RPR
7. HIV testing
8. Blood sugar testing
9. HBsAg

III. Laboratory investigations

1. Pregnancy detection test
2. Haemoglobin estimation
3. Urine test -sugar and proteins
4. Rapid malaria test

At the Sub Centre

5. Blood group, including Rh factor
6. VDRL/RPR
7. HIV testing
8. Blood sugar testing
9. HBsAg
10. Rapid malaria test (if unavailable at SC)

At the PHC

Q. -Name the infectious disease for which all antenatal women are screened.

Name infectious disease for which all antenatal women are screened at Sub centre level.

Q, Name the investigations carried out at Sub centre for all AN mothers

Hb estimation

Hb gm/dl	Grade
>11	No Anemia
7-11	Moderate anemia
<7	Severe Anemia

Blood grouping and Rh factor

- During the third antenatal visit, i.e. between 28 and 34 weeks, at PHC/FRU

- if blood transfusions have to be arranged, helping to save precious time and the life of the woman.
- It also detects Rh negative pregnancies and appropriate management can be initiated.

Testing the urine for the presence of protein (albumin)

- Early detection of pre-eclampsia/ eclampsia is one of the five major causes of maternal mortality.
- This test is to be carried out at the field level at **every antenatal visit.**

Testing the urine for the presence of sugar

- To diagnose women with gestational diabetes. This test is to be carried out at the field level at **every antenatal visit.**
- If a woman's urine is positive for sugar,>>> a glucose tolerance test

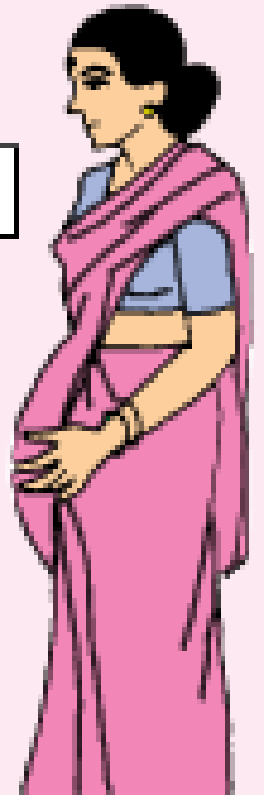
- HIV positive mother>> referred to ARV centre>>>>ART treatment irrespective of CD4 count>>>> Protocol for HIV exposed child

ESSENTIAL INVESTIGATIONS

Hemoglobin				
Urine albumin				
Urine sugar				

Signature of ANM				

Blood Group & Rh Typing. _____ Date / /



OPTIONAL INVESTIGATIONS

1. Urine pregnancy test. _____ Date / /
2. Hbs Ag. _____ Date / /
3. Blood sugar. _____ Date / /

Identification of At Risk Mother

PHAME

P- Prolong pregnancy (>14 days after EDD)

Previous Bad obstetric history- instrumental delivery CS or, PPH, Foetal loss

H-Height ≤140 cms Hydramnios, HT

A-Anemia, threatened abortion, Ante Partum Hemorrage

M- Multiple pregnancy

- Malpresentation,

-Medical disorder- CHD,DM,STD,TB, hepatitis or jaundice…..

E-Elderly primi (≥30 years)

-Elderly multipara

-Eclampsia /Pre eclampsia

All at risk mother must undergo Institutional delivery

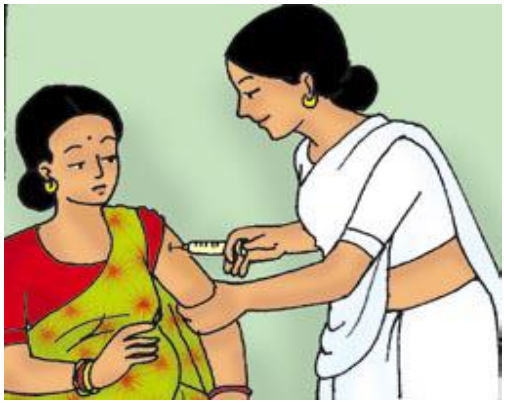
KEY MESSAGES

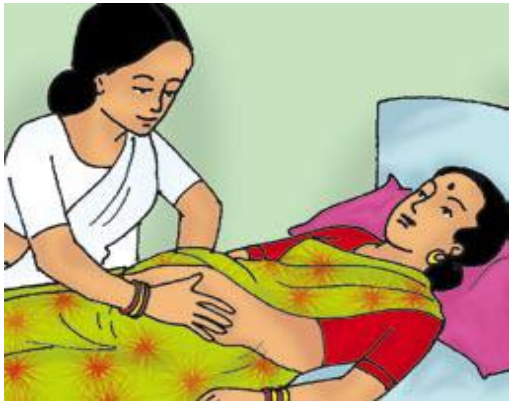
- Register every pregnancy within 12 weeks.
- Track every pregnancy by name for provision of quality ANC, skilled birth attendance and postnatal services.
- Ensure four antenatal visits to monitor the progress of pregnancy.

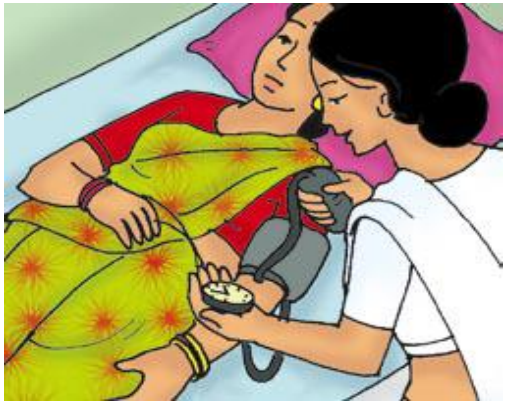
First ANC

- When
- What is the first step
- What is done

First ANC-

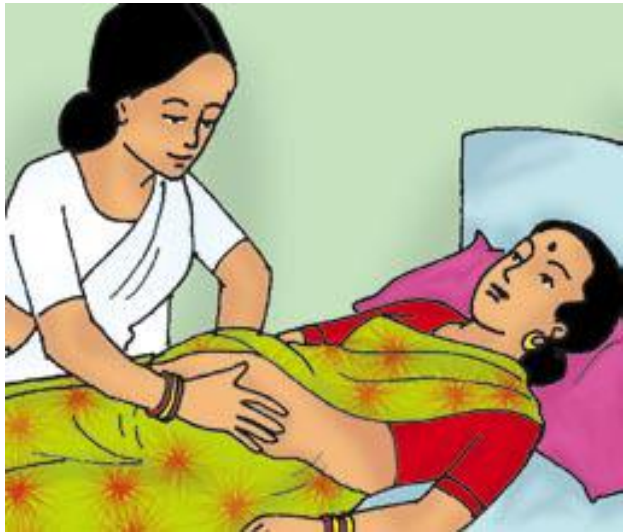


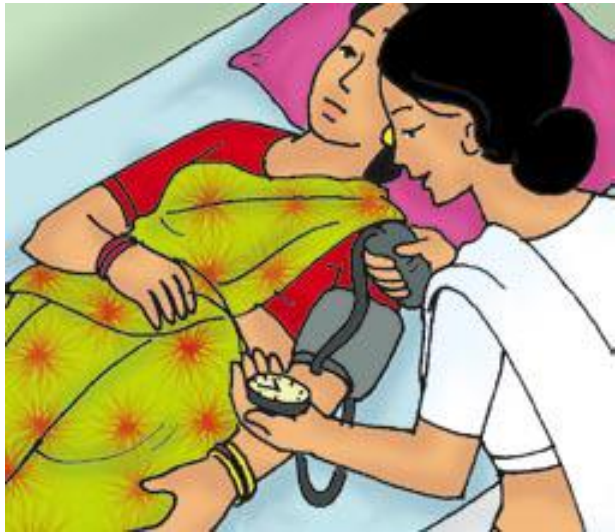




All 4 ANC visit

Test the blood for haemoglobin,
urine for sugar and protein





KEY MESSAGES
Every visit

- Test the blood for haemoglobin, urine for sugar and protein
- Record blood pressure and weight
- Advise and encourage the woman to opt for institutional delivery.
- Maintain proper records (MAMATA CARD) for better case management and follow up.

KEY MESSAGES

This includes the registration and 1st ANC in the first trimester.

- Give every pregnant woman Tetanus Toxoid (TT) injections and

Iron Folic Acid (IFA) supplementation.

Do not give a pregnant woman any medication during the first trimester unless advised by a physician.

ANC has several components,

A. A few primary steps
B. Essential Components
C. Desirable components
D. **Intervention**
E. Counselling

ANC has several components,

A. A few primary steps
B. Essential Components
C. **Desirable components**
D. Intervention
E. Counselling

Desirable components

- Examination by OB GY specialist

- USG screening for

  Gestational age, foetal presentation, malformation…..etc

ANC has several components,

A. A few primary steps
B. Essential Components
C. Desirable components
D. Intervention
E. Counselling

Interventions

- **Prophylaxis & Disease detection**

First ANC

- Before 12 weeks of gestation

A daily dose of 400 μg folic acid orally - All women in the reproductive age group should be advised to have folic acid for 2–3 months pre-conception and continue with it during the fi rst 12 weeks of pregnancy.

Prophylaxis & Disease detection

- Tetanus Toxoid - 2 doses of with 4 weeks interval

- Anemia Control Prophylaxis-

Administration of TT injection

- **2 Doses -** 0.5 ml. each Tetanus toxoid ,deep intramuscular injection.
- **Site-** in the upper arm, Inform the woman that there may be a slight swelling, pain and/or redness at the site of the injection for a day or two.

Administration of TT injection

- **The first dose** -as soon as possible, preferably when the woman registers for ANC.
- **The second dose** -one month after the first, preferably at least one month before the EDD.
- If the woman has been previously immunised with two doses during a previous pregnancy within the past three years, then give her only one dose as early as possible in this pregnancy.

TT schedule in following conditions

1. If the woman skips one antenatal visit- Women was given 1st TT 3 months back

2. If the first dose after 38 weeks of pregnancy-

Administration of TT injection

- *If the woman skips one antenatal visit, give the injection whenever she comes back for the next visit.*
- If the first dose after 38 weeks of pregnancy- then the second dose may be given in the postnatal period, after a gap of four weeks.

Management at given Hb level

Hb gm/dl	Grade
>11	**No Anemia**
7-11	**Moderate anemia**
<7	**Severe Anemia**

IFA supplementation

Prophylactic dose:

To whom- *All pregnant women –*

Dose- *100 mg* elemental iron and 0.5 mg folic acid every day for at least 100 days,

Duration- starting aft er the fi rst trimester, at 14–16 weeks of gestation. Th is dosage regimen is to be repeated for three months post-partum.

How to take IFA tab

- Daily preferably early in the morning on an empty stomach.
- In case the woman has nausea / abdominal pain >she may take the tablets after meals or at night.
- It **is normal to pass black stools** while consuming IFA.
- In case of constipation- drink Plenty of water and high fiber diet.
- IFA tablets **should not be** consumed with tea, coffee, milk or calcium tablets as these reduce the absorption of iron.

IFA ***Therapeutic dose:***

To Whom- *Hb less than 11 g/dl or has pallor*

Dose- 2 IFA tablets (*100 mg* elemental iron and 0.5 mg folic acid) every day for at least 100 days per day for three months.

A pregnant woman with anemia needs to take at least 200 tablets of IFA.

This dosage regimen is to be repeated for three months post-partum in women with moderate to severe anemia.

Anemic women

Hb estimation- after a month.

- If the level has increased>continue with two tablets of IFA daily till it comes up to normal.
- If it does not rise in spite of the administration of two tablets of IFA daily and dietary measures, refer the woman to the MO at the PHC.

Women with severe anaemia

Hb < 7 g/dl, or

Have breathlessness and tachycardia (pulse rate of >100 / minute) due to anaemia,

start on the therapeutic dose of IFA +

referred immediately to the MO in the FRU for further management.

Prophylaxis & Disease detection

- Anemia Control Prophylaxis-

  -Daily **100mg**. Elemental iron + 0.5 mgs. Folic Acid (for all pregnant women)

  -Daily 2 tab (for anaemic women).

  -Severe anaemia needs referral.

Intervention for following

1. High risk during first ANC visit
2. High Blood pressure
3. Urine test proteins
4. Urine test –sugar>> Blood sugar testing
5. Rapid malaria test
6. HIV positive
7. Blood group, including Rh factor
8. VDRL/RPR, HBsAg

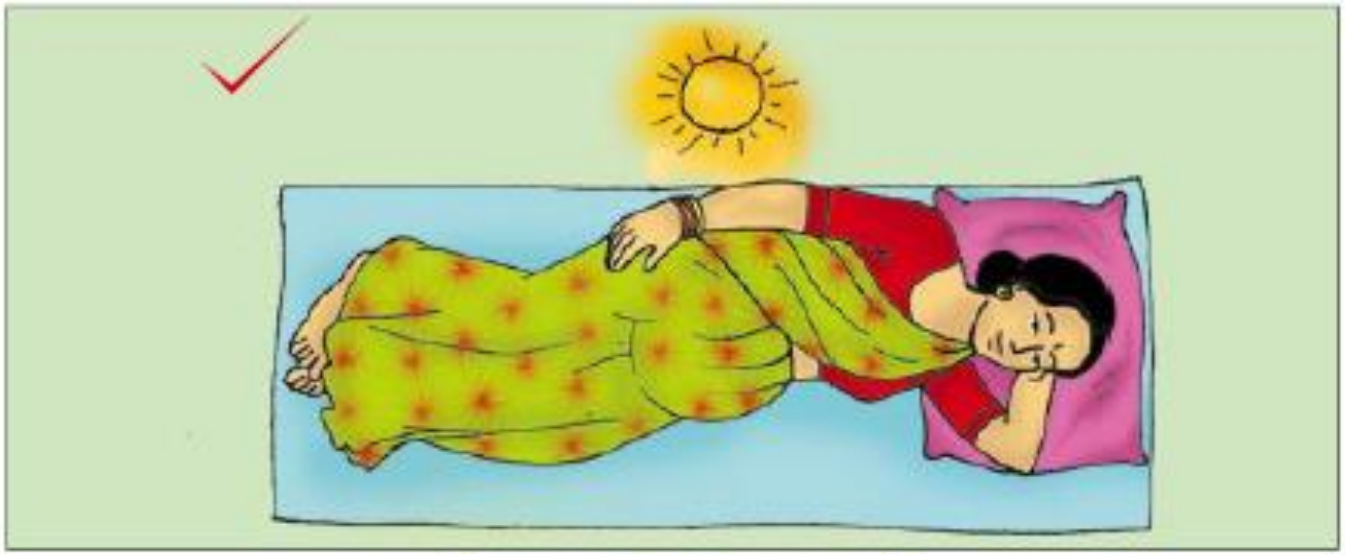
Detected -HIV positive

- Tie up with the nearest Integrated Counselling and Testing Centre (ICTC)/Prevention of Parent-to-Child Transmission (PPTCT) facility for counselling and testing for HIV.

Interventions

- Prophylaxis & Disease detection
- Counselling
- Early detection of danger S/S & complication,Identification of major risk of obstructed/ compicated labour
- Complication readiness

Pregnant woman must take adequate rest and avoid hard work



ANC: Counseling and Health Promotion

- Counselling on nutrition,
- Counselling on birth preparedness, safe abortion and institutional delivery
- Assured referral linkages for complicated pregnancies

- ***Counselling***
- Many women do not take IFA tablets regularly due to some common side-eff ects such
- as nausea, constipation and black stools. Inform the woman that these side-eff ects are
- common and not serious. Explain the necessity of taking IFA and the dangers associated
- with anaemia.

- **Malaria prophylaxis and treatment**
- No prophylaxis is recommended, but insecticide-treated bed nets or Long-Lasting
- Insecticidal Nets (LLIN) should be given on a priority basis to pregnant women in
- malaria-endemic areas. Th ese women should be counselled on how to use the LLINs.
- Check with the MO of your PHC whether your area is malaria-endemic or not.
- In non-endemic areas, all clinically suspected cases as per the National Vector-Borne
- Disease Control Programme (NVBDCP) guidelines should preferably be investigated
- for malaria with the help of microscopy or a Rapid Diagnostic Kit (RDK), if these are
- available with you.
- In high malaria-endemic areas, pregnant women should be routinely tested for malaria
- at the fi rst antenatal visit. Screen the woman for malaria every month by conducting

- Micro-birth planning has the following components:
- 1. Registration of pregnant woman and fi lling up of the Maternal and Child Protection
- Card and JSY card/below poverty line (BPL) certifi cates/necessary proofs or
- certifi cates for the purpose of keeping a record.
- 2. Informing the woman about the dates of antenatal visits, schedule for TT injections

V. Counselling

A. Planning and preparing for birth (birth preparedness)

B. Complication readiness—recognising danger signs during pregnancy, labour and after delivery/abortion

C. Diet and rest

D. Breastfeeding

E. Family Planning

F. Sex during pregnancy, Domestic violence