# ANTENATAL CARE

# Objectives

At the end of this session, the students should be able to

- Discuss Goals of antenatal care
- List scope of basic antenatal care
- Explain the component of early detection and management of complications, Prevention, birth preparedness
- Discuss History, physical examination, tests

# Introduction (FANC)

- The care a woman receives throughout her pregnancy, helps to ensure that women and newborns survive pregnancy and childbirth in good health.
- The traditional approach to **ANC assumes that more visits result in better care for pregnant women**

# Cont'd…. ANC

- Frequent routine visits are the standard, and women are classified according to **their risk of complications to** determine the level of care they should receive.

- An updated approach to ANC, called **focused ANC**, emphasizes **quality of visits over quantity of visits**.

# Cont’d .. Focused ANC

**This approach recognizes two key realities:**

- First frequent visits do not necessarily improve pregnancy outcomes.
- Second many women identified as **“high risk”** never develop complications, while women who are supposed **“low risk” often do.**
- FANC based on the premise that every pregnant woman **is at risk for complications** and all women should therefore **receive the same basic care** including monitoring for complications.

# Cont’d .. Focused ANC

- **Does not rely on some of the measures and risk indicators** that are routine in traditional ANC (e.g., maternal height, fetal presentation before 36 weeks’ gestation.
- Because they have not been proven effective in improving pregnancy outcomes.

# Cont’d .. Focused ANC

**Focused ANC relies on**

- Evidence-based ,goal-directed interventions appropriate to the gestational age.
- Address the most prevalent health issues affecting women and newborn.
- Another key strategy of focused ANC is for each visit to be conducted by a **skilled healthcare provider**.

# Goals of antenatal care

- Pregnancy and childbirth are natural processes that usually progress normally, without complications.

- ANC should not be an overly “medicalized” experience, focusing exclusively on the problems that may occur.

- *Ensuring, supporting, and maintaining*

# Goals of antenatal care

## Supporting goals focused ANC

- Early detection and treatment of problems and complications
- Prevention of complications and disease
- Birth preparedness and complication readiness
- Health promotion

# Early Detection and Treatment

- Most pregnancies are normal, an important goal of ANC is the **early detection** and treatment of problems that can complicate the woman’s pregnancy.
- Targeted assessment ; **history , physical examination , and tests** to detect **pregnancy related complications** and **chronic conditions t**hat are common in the population being served.

# Cont’d…Early Detection and Treatment

**Chronic conditions**

- Malnutrition
- HIV/AIDS, syphilis other STIs
- Tuberculosis

**Complications**

- Severe anemia , Vaginal bleeding
- Preeclampsia/ eclampsia
- Fetal distress
- Abnormal presentation after 36 weeks’ gestation

**Prevention**

- Safe, simple, and cost-effective interventions to prevent certain conditions.
- Tetanus toxoid immunization , iron/folate supplementation
- Intermittent preventive treatment and insecticide-treated bednets for malaria , Presumptive treatment for **hookworm infec**tion , Iodine supplementation

# Birth Preparedness and Complication Readiness

- If a woman is well prepared for normal childbirth and possible complications ; She is more likely to receive the **skilled and timely** care she needs.
- Assists the woman and her family in developing a **birth plan** to ensure that necessary preparations before estimated date of childbirth.
- Every woman and her family must be prepared to respond appropriately in an emergency situation.

# Cont’d….Birth Preparedness

This plan includes making **arrangements for normal childbirth**

- Skilled provider to attend the birth
- Place of birth
- Transportation , Funds
- Support/birth companion
- Items needed for a clean and safe birth and for the newborn.

## Cont’d… &complication readiness

**Complication readiness**

- Recognition of and response to danger signs.
- Decision-making in an emergency situation
- Emergency funds
- Emergency transportation
- Blood donors

# Health Promotion

- **Health messages and counseling empower women to take good care of themselves**
- Ensure the woman and her family have the information they need to make healthy decisions.

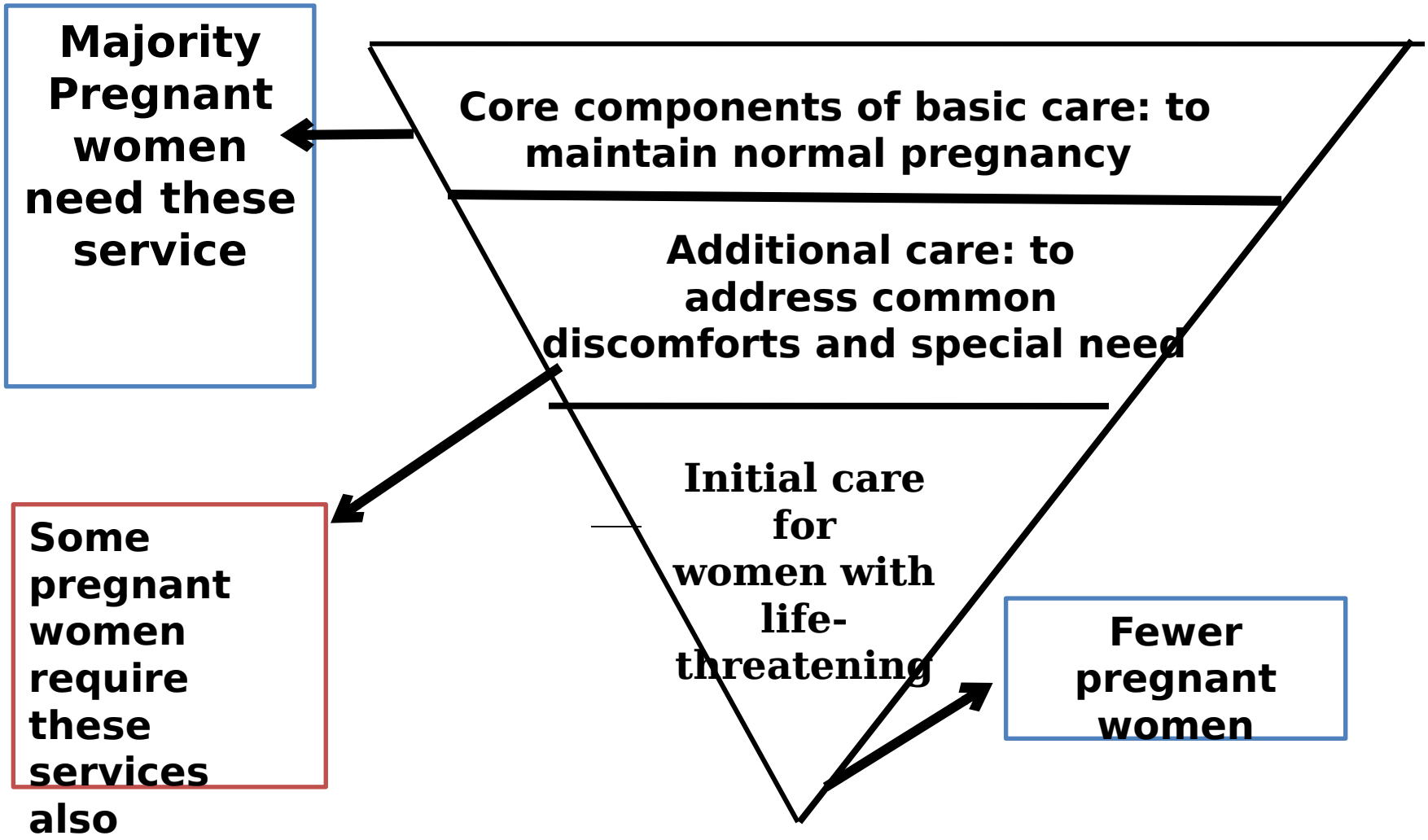
❖ During pregnancy , Childbirth, and the postpartum/newborn period

❖ Sufficient guidance in applying that

# Cont’d…Health Promotion

- Each visit, for the discussion of important health issues, such
- Care for common discomforts , Nutritional support, Use of potentially harmful substances.
- Hygiene , rest and activity , sexual relations and safer sex
- Early and exclusive breastfeeding, prevention of tetanus and anemia , Prevention of endemic diseases/deficiencies

# Scope of Basic Antenatal Care



# Scope of basic antenatal care

- The core components of basic ANC
- Additional care for women with common discomforts or special needs
- Initial Care for women with conditions beyond the scope of basic care

# The scope of basic antenatal care

- Services that all pregnant women should receive to ensure, support, and maintain a normal pregnancy, targeted assessment, individualized care provision
- Some pregnant women require special care because of **complications or other potentially dangerous conditions**.
- The vast majority of pregnant women whose pregnancies progress normally require only

# The basic ANC visit includes

- **Targeted assessment** to facilitate the early detection of complications, chronic conditions, and other problems/potential problems.
- **Individualized care provision**, consisting of preventive measures , birth planning, and health messages and counseling .

# Additional care

- **Common discomforts Special needs**

  **Social or personal factors**
- Additional preventive measure endemic for certain diseases/deficiencies.

# Special Needs

- Adolescence (19 years of age and under)
- Gender violence
- Poor obstetric history
- Female genital cutting
- Anemia
- HIV
- Living in areas of endemic disease/deficiency
- Other potential problems

# Care for women with conditions beyond the scope of basic care.

- Initial care , stabilizing the woman, facilitating the special care.

❖ Depending on the provider’s/facility’s level of competency and available resources.

- Providing appropriate care according to local protocols for diagnosis and management.

## Conditions beyond the Scope of Basic Care

- **Infectious diseases** such as malaria, tuberculosis, and syphilis
- **Chronic conditions** such as diabetes, heart disease, and severe anemia.
- **Complications of pregnancy** (after stabilization)

# Complications of pregnancy

- Vaginal bleeding
- Severe headache/blurred vision
- Elevated blood pressure
- Convulsions/loss of consciousness
- Difficulty breathing
- Fever ( 38°C or more)
- Severe abdominal pain
- Contractions before 37 weeks' gestation

# Individualization of care

- Standard package of basic ANC services that all pregnant women should receive.
- Recognizes the importance of developing a plan of care that meets each woman’s individual needs.

# Individualization of care

**By considering**

- Her current health
- Medical history
- Daily habits and lifestyle
- Cultural beliefs and customs, and any other unique circumstances the provider can individualize both assessment and care provision components of her care plan.

# Scheduling of visits

- ❖ Current WHO recommendation: Minimum of four ANC visits
- 1st visit up to 16 weeks(by the end of four month)
- 2nd visit - 24-28 (6 -7 months)
- 3rd visit- at 32 weeks (8 month)
- 4th visit – at 36 weeks (9 month)

## Core Components of Basic ANC Visit

- **Quick check**
- **Basic assessment**
- **Basic care provision**

# 1. Quick check

- Screens for **danger signs** or signs and symptoms of **advanced labor** helps to
- Quickly identify woman who need **immediate medical attention**
- Stabilize (if necessary)
- Treat and/or refer as quickly as possible

# Quick Check (cont.)

## Danger signs

- Severe headache/blurred vision, Convulsions/loss of consciousness
- Breathing difficulty, fever
- Foul-smelling discharge/ fluid from vagina, Vaginal bleeding
- Severe abdominal pain

# Quick Check (cont.)

**Signs/symptoms of advanced labor**:

- Strong, regular contractions
- Urge to push
- Leaking of fluid from vagina
- Grunting or moaning

# Basic ANC Assessment

- Ensures maternal and fetal well-being
- Helps identify common discomforts and special needs
- Screens for conditions beyond scope of basic care, including life-threatening complications

# Basic ANC Assessment (cont.)

- **History**
- **Physical examination**
  - General well-being, BP
  - Breasts,
  - Abdomen, Genital

**Testing**

- Hemoglobin
- VDRL
- HIV
- Blood group and Rh
- Blood glucose

# Basic ANC Care Provision

- **Helps maintain normal pregnancy**
- **Empowers woman for healthy practices**
- Prepares woman and family for birth and possible complications
- Helps to prevent certain diseases
- Nutritional support
- Birth and complication readiness plan
- Self-care and other healthy practices
- HIV counseling and testing
- Immunizations and other preventive measures

# Basic Antenatal Care Assessment: History Taking

# Basic Antenatal Assessment (cont.)

- **During every visit**: Consider each finding in context of other findings to:
- Target assessment
- Make more accurate diagnosis
- If abnormal signs/symptoms (s/s), conduct additional assessment

# Basic Antenatal Assessment (cont.)

**Note: Before performing basic assessment:**

- Welcome woman
- Offer her (and companion, if she desires) seat
- Ensure that she has undergone quick check

# History

1. Personal history (1st visit)
2. Menstrual history and contraceptive history (1st visit)
3. Present pregnancy (every visit)
4. Daily habits and lifestyle (1st visit)
5. Obstetric history (1st visit)
6. Medical history (1st visit)
7. Interim history (on return visits)

# Personal Information (1st Visit)

## Ask about

- Woman's **name, age, phone number, address to identify and contact her easily when needed**
- Reliable **transportation and access**
- **Current/recent problems or concerns** if yes, ask general follow-up questions to determine nature of problem or concern
- **Care from another provider—if yes, ask** why she sought care and about care received.

# Personal Information (cont.)

- Consider this information in context of further assessment, and use to:
- **Guide counseling and other care**
- Identify special needs and other conditions that require additional care.

# Menstrual History and Contraceptive History/Plans (1st Visit)

- Ask about **last menstrual period (LMP):**
- First day of LMP?
- Onset, flow, and duration normal?
- Using hormonal contraception or breastfeeding?
- If possible, calculate **estimated date of childbirth (EDD)**
- Plans for more children: How many? When?
- Family planning methods: Past use Preferences Plans for use after this baby is

## Present Pregnancy (Every Visit)

- Ask whether she has felt any **fetal movements**
- If yes, ask: When , useful for **calculating/ confirming EDD**
- Whether she has felt them in last day if not, she requires further evaluation/ additional care
- Take note of **her and her family's feelings about this pregnancy to guide** counseling

# Daily Habits and Lifestyle (1st Visit

**Ask about:**

- Daily workload
- Sleep/rest
- Dietary intake
- Currently Breastfeeding

**Use this information to:**

- Determine whether there is balance between physical demands and dietary intake
- **Guide counseling**

# Daily Habits and Lifestyle (cont.)

- Ask whether she smokes, drinks alcohol, or uses other **potentially harmful substances**
- Inquire about her **household (is she living** with her husband, partner, children, or other family members?
- Has anyone restricted her mobility or threatened her life? Has anyone physically harmed her? Is she frightened of anyone?
- If yes, she requires further evaluation/additional care (special need)

# Obstetric History (1st Visit)

- Poor obstetric history does not necessarily require special care but helps provider:
- Understand woman's concerns in this pregnancy *Emphasize importance of skilled provider at every birth*
- complications during previous pregnancy, childbirth, or postpartum/newborn period, *problems with breastfeeding*
- *If yes, she requires further*

# Medical History (1st Visit)

- **Ask whether diagnosed with:**

❖ Allergies—if yes, avoid known allergens

❖ HIV, anemia, or syphilis if yes, she requires further evaluation/additional care

❖ Heart disease, diabetes, or other chronic condition if yes, facilitate no urgent referral/transfer

# Medical History (1st Visit)

Ask whether she has had:

- Previous **hospitalization or surgery or is taking** any *medications/drugs—to guide counseling and other care, and identify special needs and other problems*
- A complete **series of tetanus toxoid (TT) vaccines—to assess her need for TT, according** to recommended **schedule**

# Interim History (Return Visits)

- **Current/recent problems or concerns -** if yes, ask general follow-up questions to determine nature of problem or concern
- **Care from another provider if yes, ask** why she sought care and about care received
- Consider this information in context of further assessment, and use to: guide counseling

## Interim History (cont.)

- Ask whether any of following have changed since her last visit:
- Personal information
- Daily habits or lifestyle
- Medical history
- Check whether she has been unable to adhere to plan of care

# Interim History (cont.)

- Note any reactions or side effects to immunizations or drugs/medications given at last visit
- Use this information to: maintain accuracy of woman’s medical records
- Guide further assessment and identify problems determine changes that need to be made in current plan of care

# Physical Examination

- General well-being (every visit)
- Blood pressure (every visit)
- Breasts (1st visit, as needed based on s/s)
- **Abdomen (every visit)**
- Genitals (1st visit, as needed)

# General Well-Being (Every Visit)

Gait and movement , facial expression - alert, responsive

- General cleanliness - no visible dirt, odor
- Condition of skin - no lesions, bruises
- Use findings to: Identify problems (e.g., conjunctiva pallor can be sign of anemia, bruises may be sign of abuse)
- **Guide counseling and other care**

## Blood Pressure Measurement (Every Visit)

- Systolic 90 to 140 mmHg , Diastolic less than 90 mmHg
- If systolic less than 90 or diastolic more than 110 mmHg, perform rapid initial assessment
- Diastolic more than 90 mmHg requires urgent further evaluation/additional care (life-threatening complication)

## Visual Inspection of Breasts (1st Visit, as needed)

- **Contour** - regular contour, no dimpling or visible lumps
- T**exture-** smooth skin, no puckering; no areas of scaliness, thickening, or redness; no lesions, sores, or rashes
- **Nipples-** no abnormal nipple discharge, no inverted nipples; normal variation: colostrum after 6 weeks' gestation

# Abdominal Examination

## AIMS

- To observe signs of pregnancy
- To assess fetal size and growth
- To assess fetal health
- To diagnose the location of fetal parts.
- To detect any deviation from normal

## Abdominal Examination (Every Visit )

- Surface of abdomen (1st visit)
- Fundal height (after 12 weeks' gestation)
- Fetal parts and movements (between 20 weeks' and term gestation)
- Fetal lie and presentation (at/ after 36 weeks' gestation)
- Fetal heart tones (after 20 weeks' gestation)

# Inspection



- Abdomen is inspected for it’s shape, size , scars and skin
- Fetal movement

# Palpation

Abdominal palpation sometimes called Leopoled Maneuver

- Fundal height and fundal palpation (1st Leopoled Maneuver)
- Lateral palpation (2nd Leopled maneuver)
- Deep pelvic palpation (3rd Leopoled maneuver)
- Pawlick`s Grip (4th leopoled maneuver)

**Palpation….**

## Preparation

- Woman is supine, head slightly elevated and knees slightly flexed
- Place a small rolled towel under her right hip

  – If the examiner is R handed, stand at the woman’s R side facing her for the first 3 steps, then turn and face her feet for the last step (L handed, left side).

## Fundal palpation

- To determine what is found in the fundus a hand is placed on the abdomen below the xiphisternum and gently moved downwards until the fundus is felt.



**Purpose**-To know lie and presentation

(After 36 weeks)

- Measuring the fundal height

# Fundal palpation……..



- Using the flat interior of the tips of the middle fingers of both hands the fundus is palpated to identify the fetal pole (cephalic or breech).
- If no pole is located the lie is not longitudinal.

- *Assess for shape, size, consistency and mobility*

**Fetal head**: firm, hard, and round

- Moves independently of the rest
- Detectable by ballottement

**Buttocks/breech**:

- softer and has bony prominences
- Moves with the rest

**Fundal palpation……..**

Things which influence the fundal height are:

- Maternal parity
- Size, full bladder
- The lie and the number of

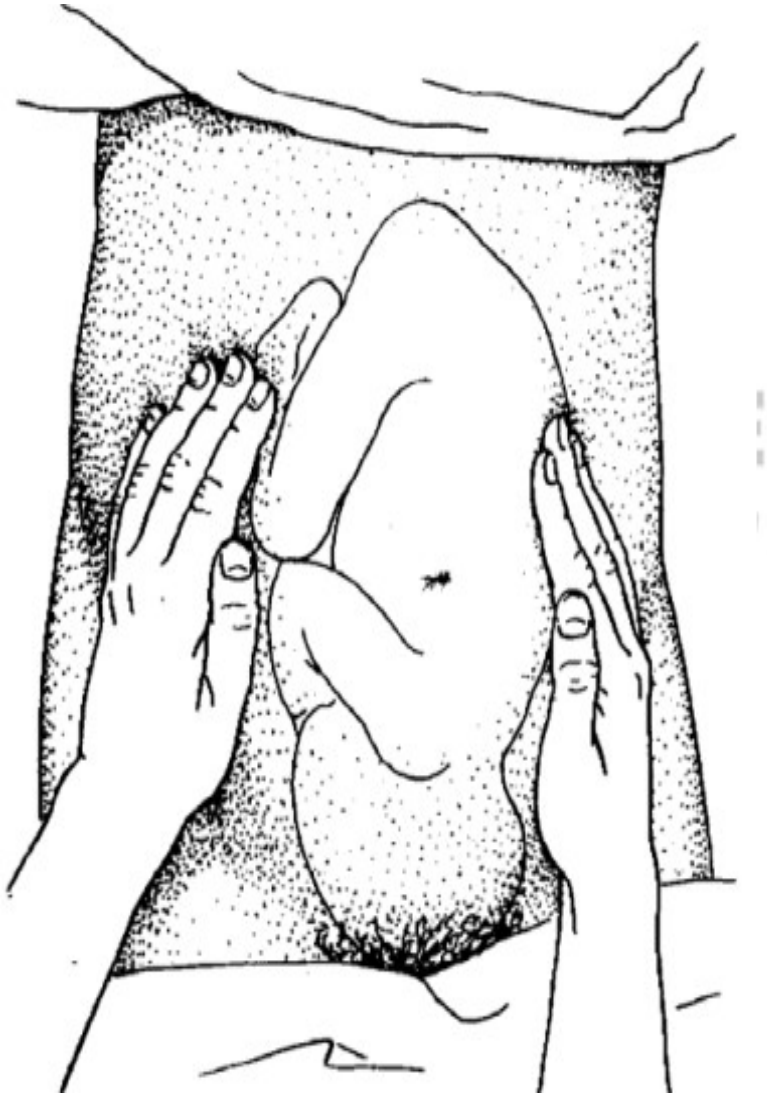
# Lateral palpation



**Method**: -always facing the mother, fix the hand on the center of the abdomen, fix the right hand and palpate with left hand and vise versa. **Note the regularity; the regular side is the back**

**Purpose**-To know lie and position

# Lateral palpation Cont'd...



**Lateral palpation** also provides insight into the

- Size of the fetus
- Amniotic fluid volume and also whether fetal movements are present

# Deep pelvic Palpation: (3rd Leopoled Maneuver)

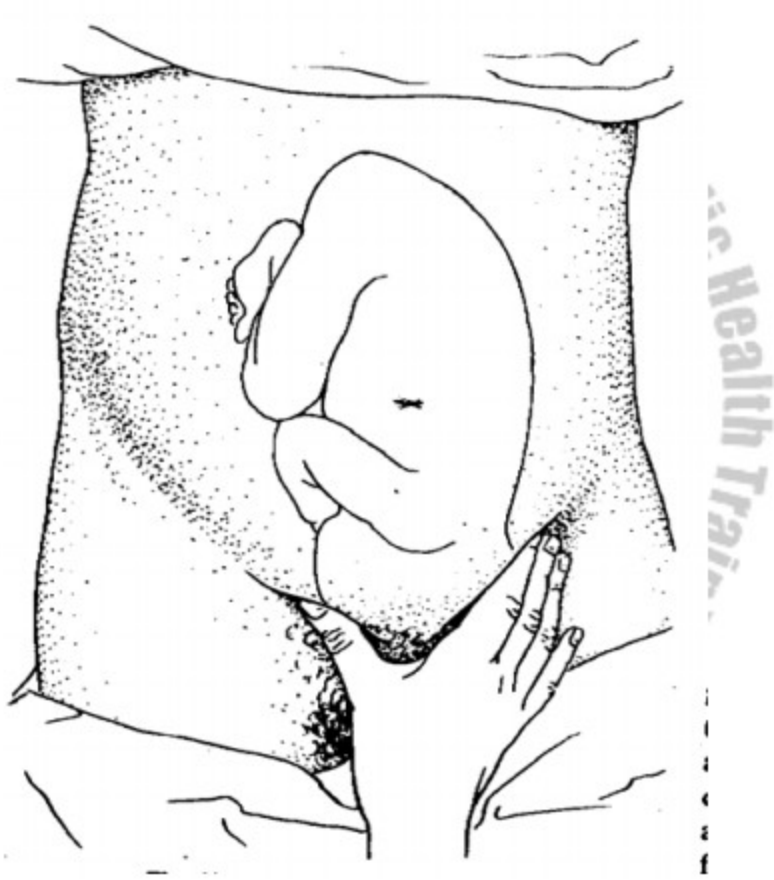
**Purpose**-To Know Presentation & Attitude

**Method**: -Feel presenting part, is it hard or soft while palpating for the presenting part feel for eminences on back side.



# Pawlick's Grip: (4th Leopard Maneuver)

- The lower pole of the uterus is grasped with the right hand the midwife facing the women's head, feel the occiput and sinciput, note which is lower.



# Auscultation



- The fetal heart is assessed for its presence, its rate and its regularity.

The normal heart rate is between 120 & 160 beats per minute.

- count for one

**Listen to the fetal heart rate:**

- Place fetal stethoscope on abdomen at right angles to it (on the same side that you palpated the fetal back)

- Place your ear in close, firm contact with fetal stethoscope
- Move fetal stethoscope around to where fetal heart is heard most
- Remove hands from fetal stethoscope and listen to fetal heart

- Listen and count beats for a full minute,
- Feel the woman's pulse at wrist,

# Pelvic assessment

- Why pelvic assessment??
- When do pelvic assessment?
  - Prenatal
  - Intrapartum
- Important area to be focused when doing pelvic assessment
- Procedures for pelvic

Why pelvic assessment??

To determine **adequacy of the pelvis**

When do pelvic assessment?

- Prenatal- during late pregnancy (for

# Procedure

- **Prepare equipment** needed***:(sterile gloves, cotton, swabs with antiseptic solution in the kidney dish, waste container, light)***
- Explain the procedure
- Have the pt emptied her bladder and bowel before the procedure.
- Position patient ***dorsally-B/C examination easy in dorsal position with legs flexed at the things and knees***

**Examination**

**External**

- Inspect vulva for the presence of **varicose vein**, **venereal disease lesions and discharge**

**Internal**

- The right hand is gloved
- Labia majora is separated with left hand using gauge
- Index and middle fingers of the right hand are lubricated with obstetrics cream and are introduced into vagina

## Important point to be noted

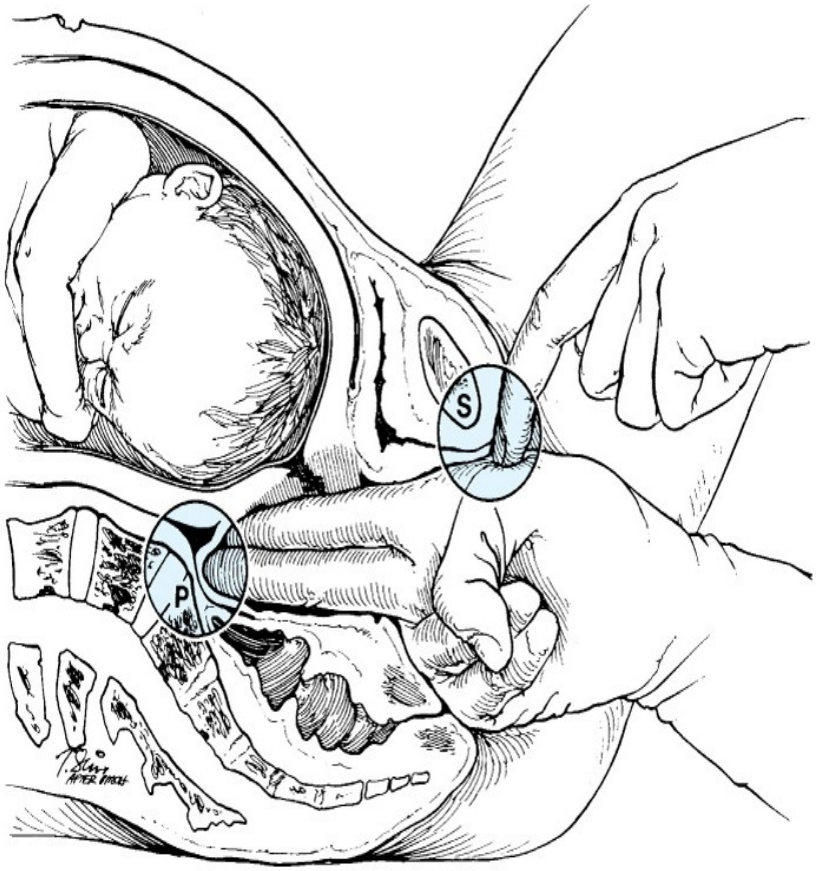
- Texture and degree of shortening(effacement) and dilation of cervix (if in labour) or in late pregnancy
- Degree of engagement of head is determined.( in labour or primigravida in late pregnancy)
- **Station**
- Pelvic side walls are felt
- Condition of the vagina walls noted whether it is rigid, lax, etc

## Important point to be noted

- Pelvic side walls are felt and the fingers withdrawn
- Pubic arch should admit two fingers or more
- Distance b/n the ischial tuberosities is measured by placing a closed fist b/n them.
- The soft tissue and the perineal condition is also noted whether they are relaxed and elastic or hard and rigid.
- Attempt is made to reach the promontory of the sacrum
- The curve of the sacrum is felt.

# Important point to be noted

- The prominence of ischial spine is noted




Source: Cunningham FG, Leveno KJ, Bloom SL, Hauth JC, Rouse DJ, Spong CY: *Williams Obstetrics, 23rd Edition:* http://www.accessmedicine.com

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Measurement of DC:
normal=13cm
OBC=DC-2cm=11cm

**Genital Examination(1st Visit, as needed)**

## Interpersonal skills reminders

- Tell her what you are going to do before each step
- Cover/drape woman to ensure privacy and respect modesty
- Touch inside of thigh first

## Infection prevention reminders

- Wash hands
- Use new or high level-disinfected gloves on

## Genital Examination (cont.)

- Vaginal opening - no signs of female genital cutting
- **Skin – no sores, ulcer soft, not painful**
- **tears, warts, nits, or lice**
- Labia -Vaginal secretions - no blood or foul-smelling, Yellow/green discharge; no urine or stool
- Skene’s and bartholin’s glands—not painful, no discharge when milked

# Basic Antenatal Care III
# Assessment: Testing

# Testing

- **Information gathered through** history-taking and physical examination should be taken into consideration during testing.

**Focus testing on following:**

- Hemoglobin levels (1st visit/as needed)
- VDRL for syphilis (1st visit)
- HIV
- Blood group and RH (1st visit)
- Urine glucose (1st visit, if applicable)

## Hemoglobin Levels

Conducted at 1st visit/as needed based on signs, symptoms and/or history

- Normal: 11 g/dL or more
- Levels less than 7 g/dL **indicates severe anemia** and requires urgent referral/transfer
- Levels 7–11 g/dL requires **further evaluation/additional care (special need)**

# Blood Group and RH

## Conducted at 1st visit:

- Most commonly: blood group is A, B, AB, or O; RH is positive
- If RH is negative, woman is candidate for anti-D immune globulin

# Urine Glucose

- Conduct at 1st visit/as needed if woman lives in area with high prevalence of diabetes:
- Normal: negative for glucose
- If negative, retest early in 3rd trimester
- Positive for glucose requires nonurgent referral/transfer.

# Basic Antenatal Care IV

## Care Provision

## Basic Antenatal Care Provision (cont.)

**During every visit:**

- Provide **all elements** of basic care package
- If abnormal s/s (based on assessment), **provide additional care**

**During return visit:**

- Make necessary changes to care plan (based on assessment)
- Review and update birth and complication readiness plan
- Reinforce key messages
- Replenish supply of supplements and drugs/medications

# Basic Antenatal Care Provision (cont.)

**Nutritional support**

- Birth and complication readiness plan
- Self-care and other healthy practices
- HIV testing and counseling
- Immunizations and other preventive measures.
- Eat balanced diet including variety of foods each day
- Have at least one extra serving of staple food per day

# Birth and Complication Readiness Plan

1st visit:

- Introduce concept and each element
- Assist in developing plan

**Return visits:**

- Check arrangements made
- Note changes and problems
- By 32nd week: finalize plan

# Birth Plan Components

**Overview**

- Skilled provider
- Items for clean and safe birth and for newborn
- Appropriate setting/healthcare facility
- Transportation/emergency transportation
- Funds/emergency funds

# Birth Plan Components (cont.)

- Decision-maker / Decision-making process
- Support
  - Companion of choice
  - Care for family at home
- Blood donor
- Danger signs and signs of labor

# Birth Plan Components (cont.)

**Skilled provider:**

- Assist woman in arranging for skilled provider to attend birth
- Ensure that woman has contact information

Items needed for clean and safe birth and for newborn:

- Discuss appropriate items, depending on

# Birth Plan Components (cont.)

- Appropriate setting / healthcare facility

**Assist in deciding:**

- Place of birth (e.g., home, hospital), depending on individual needs
- For possible complications: facility woman should go to if danger signs arise

# Birth Plan Components (cont.)

- Transportation / emergency transportation
- Ensure reliable/accessible transportation to place of birth (for her or skilled provider) and to appropriate facility for emergency care

**Funds/emergency funds**

- Ensure availability of funds (private or community) for care during normal birth or emergency

**Decision-making**

**Identify:**

- Key decision-maker
- Who makes decisions in that person’s absence

# Birth Plan Components (cont.)

**Support**

- Help choose individuals to:

  - Support her during labor/birth

  - Accompany her during transport

  - Take care of household during her absence

**Blood donor**

- Help choose appropriate blood donor in case of emergency

# Birth Plan Components (cont.)

**Danger signs**

- Ensure that woman and family know danger signs, which indicate need to enact complication readiness plan.

**Danger signs:**

- Vaginal bleeding
- Breathing difficulty
- Fever
- Severe abdominal pain
- Severe headache / blurred vision
- Convulsions / loss of consciousness
- Foul-smelling
- discharge / fluid from vagina
- Decreased / absent fetal movements
- Leaking of greenish / brownish (meconium stained) fluid from vagina

# Birth Plan Components (cont.)

**Signs of labor**

- Ensure that woman and family know signs of labor, which indicate need to contact skilled provider and enact birth preparedness plan:
- Regular, progressively painful contractions
- Lower back pain radiating from uterus
- Bloody show
- Rupture of membranes

## Self Care and Other Healthy Practices

- Individualize messages based on woman's history and other relevant findings
- Encourage woman's partner to be present during these discussions
- Counseling on breastfeeding and other postpartum/newborn topics may be more effective later in pregnancy

# Use of Potentially Harmful Substances

- Tobacco, alcohol, and drugs / medications may be harmful to pregnant woman and fetus.
- Prescribe drugs / medications that are necessary and safe

# Prevention of Infection/Hygiene

- Good hygiene (hand washing, safe food and water preparation/handling, bathing and general cleanliness
- Dental hygiene - hormonal changes cause gum swelling/sensitivity

**Immunization and Other Preventive Measures**

- Tetanus toxoid immunization
- Iron / folate supplementation
- Region / population-specific preventive measures

**Immunization and Other Preventive Measures**

## Give iron and folic acid:-

- To all pregnant, postpartum and post-abortion women:

❖ Routinely 60mg elemental iron and 400 µg folic acid once daily in pregnancy and until 3 months after delivery or abortion.

❖ Twice daily as treatment for anemia (double dose).

**Note**: 1 ferrous sulfate tablet = ~60-mg Iron, folic acid = 400-µg

- Check woman's supply of iron and folic acid at each visit and dispense 3 months supply.

**Immunization and Other Preventive Measures**

- To enhance the absorption of iron, instruct mothers to take iron when eating meat or vitamin-rich foods (fruits and vegetables).
- Avoid tea, coffee, and milk at the same time when taking iron; it interferes with the body's absorption of iron.
- Iron can also be taken between meals.
- Advise to store iron safely:

→ Where children cannot get it

→ In a dry place

- if the woman has not previously been vaccinated, or if her immunization status is unknown, give two doses of TT/Td one month apart before delivery, and further doses.

  if the woman has had 1–4 doses of tetanus toxoid in the past, give one dose of TT/Td before delivery

| Dose | Time for administration | Duration of protection |
|---|---|---|
| TT1 | At first contact | No protection |
| TT2 | 4 weeks after TT1 | Three years |
| TT3 | At least 6 months after TT2 | Five years |
| TT4 | At least one year TT3 | Ten years |
| TT5 | At least one year after TT4 | For thirty years (throughout a woman's reproductive life |

# Rest and Activity

- Increase rest time , avoid lying on back (lying on left side with legs elevated is best)
- Avoid sitting or standing for long periods
- Decrease workload; avoid overexertion and carrying heavy loads
- Use proper body mechanics

# Sexual Relations and Safer Sex

- Having or contracting a STI during pregnancy is dangerous to woman, her partner, and their unborn baby
- **Practicing safer sex-** consistent use of condoms is important, even during pregnancy
- During pregnancy, decrease or increase in woman’s sexual desire is common ; Sexual intercourse for normally progressing pregnancy will not harm woman or fetus

## Early and Exclusive Breastfeeding

- Benefits
- General principles

## Family Planning

- Birth spacing - intervals of at least 3 years beneficial to women and babies
- Safe methods for postpartum women

## Method options for the breastfeeding woman

| | |
|---|---|
| **Can be used immediately postpartum** | • Lactational amenorrhoea method (LAM)<br>• Condoms<br>• Spermicide<br>• Female sterilisation (within 7 days or delay 6 weeks)<br>• IUD (within 48 hours or delay 4 weeks) |
| **Delay 6 weeks** | • Progestogen-only oral contraceptives<br>• Progestogen-only injectables<br>• Implants<br>• Diaphragm |
| **Delay 6 months** | • Combined oral contraceptives<br>• Combined injectables<br>• Fertility awareness methods |