

ANTENATAL CARE

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LEARNING OBJECTIVES :

By the end of this subject the student will be able to:

- Define antenatal care
- List the objectives of antenatal care
- Plan a protocol for antenatal care including determining the minimal number of visits
- Mention the value of the first visit correctly
- Mention the objectives of subsequent visits
- List routine investigations for pregnant women
- List the warning symptoms of pregnancy
- Know the risk factors for pregnancy
- Take an appropriate history from a pregnant woman during an antenatal visit
- Diagnose some obstetric and general conditions from the results of routine investigations.

Definition:

It is a program of *preventive obstetrics*

It aims at *Safe mother hood*

Aims of antenatal care:

- *Early diagnosis* & prompt management of preexisting medical disease (e.g. D.M.).
- *Prevention* of pregnancy-induced complications (e.g. PET).
- *Health Education* for adequate diet, proper hygiene and warning symptoms
- Doing *important laboratory investigations* e.g. blood group & Rh factor
- Adequate management of problems that may affect labor (e.g. disproportion)

Pregnancy Risk Assessment:

To determine the type of pregnancy whether *Low Risk* or *High Risk* according to the following factors:

- Age
- Socio-economic status
- Previous infertility
- Obstetric history
- Chronic maternal disease
- BMI
- Parity

Frequency of Visits: depends upon the type of pregnancy:

Low Risk pregnancy:

/month in the 1st 7 months, /2weeks in the 8th month, /week in the 9th month.

High Risk pregnancy: increased (may be doubled, may be hospitalized).

First Visit

The following things should
be done

Registration and Filing: better to be electronic.

History taking: to cover all items in the personal, menstrual, obstetric, past and family history.

Examination:

- conducted systematically
- Indications for vaginal examination:
 - diagnosis of pregnancy (before U/S)
 - bleeding (in early pregnancy or after exclusion of placenta previa in late pregnancy).
 - presence of uterine colic
 - presence of vaginal discharges.

Investigations:

Urine:-albumin -sugar

Blood:-Hb%, -blood group
 - Rh factor.

Others: according to the merits of each case.

Follow up Visits

History taking:- warning symptoms.

Examination:-

- BP -weight gain (ideally $\leq 2\text{kg/m}$).
- L. Ls.: edema.
- Abdominal examination:-fundal level (fetal growth)
- Vaginal examination: for
 - *pelvimetry at the 36th week.
 - *diagnosis of labor.
 - *evaluation of the cervical condition on attempted termination of pregnancy.

Investigations:

The urine is retested for:
the appearance of albumin or sugar

Instructions

Habits: 3 Bs.

Bath: shower and not tube

Breast care:

- daily wash,
 - nipple massage: glycerine & alcohol
 - nipple withdrawal: particularly for primigravid.
- Bowel:** prevent constipation “by fresh vegetables”.
- Clothes loose with no high heels.

Requirements

- BMR**: *non pregnant: 1500 cal./day.
- Total caloric needs (=BMR+work)**:
 - *non-pregnant:- 2000-2300 cal./day .
 - *normal pregnancy: 2300-2500 cal./day.
- Proteins**:*non pregnant: 1 g/kg/day,
 - *pregnant: 1.5g/kg/day,
- carbohydrates**: 65 g/day.

Vitamins:

- **vit. A:** 1000 IU/day
- **vit. D:** 400IU/day
- **thiamin:** 0.4 mg/day
- **riboflavine:** 0.7 mg/day
- **nicotinic acid:** 3 mg/day
- **pyridoxine:** 2.5mg/day
- **cyanocobalamin:** 7 μ g/day
- **vit. C:** 40mg/day
- **Folic acid:** 300 μ g/day

Minerals

- **Ca** 5g/day and
- **Na& K.:** no need for supplementation
- **iron:** *non pregnant: 1.5 mg/day.
 - *food: 15mg/day (absorbed 1/10).
- Needs during pregnancy:
 - *external losses: 170mg,
 - *maternal expansion: 450mg,
 - *fetal expansion: 270mg,
 - *placenta and cord: 90mg
 - total 980 mg.

Supplementation after the 16th week, by Fe SO₄

200mg=60mg elemental=6mg absorbed/day

The suggested adequate balanced diet might be in the form of:

-Breakfast: 200ml milk, piece of cheese, one egg, bread

-Supper: 200ml milk

-Lunch: Potatoes, 120gm Meat or Fish, Fresh vegetables, bread, Fruit

-Supper: 200ml milk

-Dinner: 200ml Milk, cheese, butter, bread, fresh fruit juice.

Warning Symptoms:

- Vaginal bleeding
- Sudden water per vagina
- Colic
- Heaviness, Frequency, Backache
- Swelling of the L.Ls., face, fingers.
- Persistent headache, vomiting, blurring of vision
- Yellow discoloration.