



RASHIDA IQBAL FINANCIAL AID

ORGANIZATION

IMPORTANT DIAGNOSTIC POINTS OF OBSTETRICS:

- 1) The median duration of pregnancy is 280 days (40 weeks)
- 2) the cycle length is 28 days;
- 3) ovulation occurs generally on the 14th day
- 4) The EDD is calculated by taking the date of the LMP, counting forward by nine months and adding 7 days.
If the cycle is longer than 28 days, add the difference between the cycle length and 28 to compensate.
- 5) Term is actually defined as 37–42 weeks
- 6) If performed before 20 weeks, the ultrasound scan can be used for dating the pregnancy.
- 7) pregnancy dates are set only by ultrasound.

8) The crown–rump length is used up from 10 weeks until 13 weeks and 6 days.

head circumference from 14 to 20 weeks.

9) Smoking causes a reduction in birth weight in a dose-dependent way.

It also increases the risk of miscarriage, stillbirth and neonatal death.

10) Binge drinking can lead to a constellation of features in the baby known as fetal alcohol syndrome

11) During the booking visit, the midwife should directly enquire about drug taking.

12) Cocaine and crack cocaine are

the most harmful of the illicit/recreational drugs taken.

13) • gravida is the total number of pregnancies regardless of how they ended;

14) • parity is the number of live births at any gestation or stillbirths after 24 weeks.

15) Women with very long cycles -----> polycystic ovarian syndrome. -----> condition have increased insulin resistance and a higher risk for the development of gestational diabetes.

16) Previous episodes of pelvic inflammatory disease increase the risk for ectopic pregnancy.

17) If a cervical smear is due, it can be taken in the first trimester.

18) Knife cone biopsy is associated with an increased risk for both cervical incompetence (weakness) leading to preterm delivery and stenosis (leading to dystocia in labour).

19) Donor egg or sperm use is associated with an increased risk of pre-eclampsia.

20) Women with a body mass index (BMI) [weight (kg)/height (m²)] of <20 are at higher risk of fetal growth restriction and increased perinatal mortality.

21) In the obese woman (BMI 30), the risks of gestational diabetes and hypertension are increased.

22) Height should be measured at booking to assist with BMI assessment.

23) The first recording of blood pressure should be made as early as possible in pregnancy.

24) Hypertension diagnosed for the first time in early pregnancy (blood pressure 140/90 mmHg on two separate occasions at least 4 hours apart) .

most likely cause ---> essential hypertension, this is a diagnosis of exclusion. It should be performed at every visit.

25) Screening of midstream urine for asymptomatic bacteriuria in pregnancy is of proven benefit.

26) At repeat visits, urinalysis should be performed.

27) Flow murmurs can be heard in approximately 80 per cent of women at the end of the first trimester.

28) The common areas to find scars are:

- suprapubic (Caesarean section, laparotomy for ectopic pregnancy or ovarian masses)
- sub-umbilical (laparoscopy);
- right iliac fossa (appendicectomy);
- right upper quadrant (cholecystectomy).

29) striae gravidarum or linea nigra (the faint brown line running from the umbilicus to the symphysis pubis)

30) In late third trimester the fundal height is usually approximately 2 cm less than the number of weeks.

31) A large Symphysis fundal height (SFH) raises the possibility of:

- macrosomia;
- multiple pregnancy;
- polyhydramnios.

32) A small SFH could represent:

- FGR;
- oligohydramnios.

33) likelihood of labour increases, i.e. after 34–36 weeks in an uncomplicated pregnancy.

34) If there is a pole over the pelvis, the lie is longitudinal regardless of whether the other pole is lying more to the left or right.

An oblique lie is where the leading pole does not lie over the pelvis, but just to one side.

transverse lie is where the fetus lies directly across the abdomen.

35) cephalic (head down)

breech (bottom/feet down)

36) If you can feel the whole of the fetal head and it is easily movable, the head is likely to be 'free'. This equates to 5/5th palpable and is recorded as 5/5.

37) When the head is no longer movable, it has 'engaged' and only 1/5th or 2/5th will be palpable

38) Pelvic examination: Consent must be sought and a female chaperone (nurse, midwife, etc. – never a relative) present

(regardless of the sex of the examiner).

39) circumstances in which a vaginal examination is necessary (in most cases a speculum examination is all that is needed). These include:

- excessive or offensive discharge;
- vaginal bleeding (in the known absence of a placenta praevia)
- to perform a cervical smear;
- to confirm potential rupture of membranes.

40) A digital examination may be undertaken to perform a membrane sweep at term, prior to induction of labour.

41) The contraindications to digital examination are:

- known placenta praevia or vaginal bleeding when the placental site is unknown and the presenting part unengaged;
- prelabour rupture of the membranes (increased risk of ascending infection).

42) Signs of chronic hypertension include silver-wiring and arteriovenous nicking.

43) When pre-eclampsia is suspected, the reflexes most easily checked at the ankle. The presence of more than three beats of clonus is pathological

44) Antenatal screening is now offered for:

- Down's syndrome;
- fetal anomaly (by ultrasound);
- haemoglobinopathies;
- rubella status;
- HIV/hepatitis B status;
- Tay–Sachs disease in high-risk populations.

45) Newborn screening includes:

- hearing;
- phenylketonuria;
- congenital hypothyroidism;
- cystic fibrosis;
- medium chain acyl co-A dehydrogenase deficiency.

46) maternal death

the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

47) Maternal mortality ratio MMR

the number of maternal deaths in a population divided by the number of live births;

48) Maternal mortality rate (MMRate)

the number of maternal deaths in a population divided by the number of women of reproductive age

Risk of maternal death per pregnancy or per birth (live birth or stillbirth), but also the level of fertility

49) Causes of maternal mortality

- Haemorrhage, Infection, Unsafe abortion, Hypertension, Obstructed labour
- Other direct causes: ectopic pregnancy, embolism, anaesthesia-related causes.
- Indirect causes: anaemia, malaria, heart disease.

50) The most life-threatening complication at delivery is haemorrhage.

51) symptoms of pregnancy by the end of the sixth week after the last menstrual period.

52) most physiological adaptations are completed during the first trimester

53) Following implantation, the maternal adaptation to pregnancy can be categorized based on the following functions:

1. increased availability of precursors for hormone production and fetal-placental metabolism;
2. improved transport capacity;
3. maternal-fetal exchange; and
4. removal of additional waste products.

54) The placenta regulates maternal-fetal exchange by 10-12 weeks gestation

55) The rapid expansion of maternal blood volume begins at 6-8 weeks gestation plateaus at 32-34 weeks gestation.

56) The most marked expansion occurs in ECF volume, especially circulating plasma volume.

57) 8 and 10 kg of the average average maternal weight gain during pregnancy.

58) Total body water increases from 6.5 to 8.5 L by the end of pregnancy.

59) Changes in blood volume ---> increases in cardiac output and in renal blood flow

60) haematological indices in normal pregnancy

- larger increase of plasma volume relative to erythrocyte volume results in haemodilution and a physiologic anaemia

- Decreased --> concentration

Haemoglobin, Haematocrit, Serum albumin

- Increased --> blood flow

Stroke volume, Placental flow, Renal blood flow

61) a plasma osmolality decreases by about 10 mOsmol/kg.

62) Plasma oncotic pressure is by albumin conc. ↓ 20% during normal pregnancy to levels (28–37 g/L) that are considered abnormal outside pregnancy. ----> ↑GFR during pregnancy ---> peripheral oedema (feature of normal pregnancy)

63) thirst threshold, plasma osmotic pressure ↓ during pregnancy

64) Factors contributing to fluid retention

- Sodium retention.
- Resetting of osmostat.
- ↓ Thirst threshold.
- ↓ Plasma oncotic pressure.

65) Consequences of fluid retention

- ↓ Haemoglobin concentration.
- ↓ Haematocrit.
- ↓ Serum albumin concentration.
- ↑ Stroke volume.
- ↑ Renal blood flow.

66) Pregnancy is a hypercoagulable state, which returns to normal around 4 weeks after delivery.

67) procoagulant factors ↑

factors VII, VIII, IX, X and XII and fibrinogen (50% increase -- 450 mg/dl)

68) Levels of von Willebrand factor ↑ Antithrombin III ↔ protein S ↓ Plasma homocysteine concentrations ↓ --> concentrations lowest in the 2nd trimester before returning to non-pregnant levels postpartum.

69) Maternal plasma D-dimer concentration ↑ 2nd trimester beginning 50% women have d dimers > 0.50 mg/L and in 3rd trimester 90% women > 0.50 mg/L

70) tPA convert plasminogen into plasmin---> degrade fibrinogen and fibrin --> fibrin degradation products!

71) Endothelial derived PAI-1 (plasminogen activator inhibitor type 1) ↑ late pregnancy and placental-derived PAI-2, detectable in the plasma during the first trimester ↑ throughout pregnancy.

72) At term, around 500 mL of blood flows through the placental bed every minute.

73) Myometrial contractions first compress the blood vessels supplying the placental bed, followed by fibrin deposition over the placental site

74) Serum creatinine, uric acid and urea ↓ Alkaline phosphatase levels ↑ throughout pregnancy

75) ALT AST ↓ LDH ↔ observed rise in serum LDH 1 week after delivery

76) WBC Fibrinogen Triglycerides ↑

77) Decreases in

- haemoglobin concentration;
- haematocrit;
- plasma folate concentration;
- protein S activity;
- plasma protein concentration;
- creatinine, urea, uric acid.

78) Increases in

- erythrocyte sedimentation rate;
- fibrinogen concentration;

- activated protein C resistance;
- factors VII, VIII, IX, X and XII;
- D-dimers;
- alkaline phosphatase.

79) Skin changes

- Hyperpigmentation.
- Striae gravidarum.
- Hirsutism
- ↑ Sebaceous gland activity.

80) Endocrine changes

- ↑ Prolactin concentration.
- Human growth hormone is suppressed.
- ↑ Corticosteroid concentrations.
- ↓ TSH in early pregnancy.
- ↓ fT4 in late pregnancy.
- hCG is produced.
- Insulin resistance develops.

81) Renal changes

- ↑ Kidney size (1 cm).
- Dilatation of renal pelvis and ureters.
- ↑ Blood flow (60–75 per cent).
- ↑ Glomerular filtration (50 per cent).
- ↑ Renal plasma flow (50–80 per cent).
- ↑ Clearance of most substances.
- ↓ Plasma creatinine, urea and urate.
- Glycosuria is normal.

82) Cardiovascular changes



- ↑ Heart rate (10–20 per cent).
- ↑ Stroke volume (10 per cent).
- ↑ Cardiac output (30–50 per cent).
- ↓ Mean arterial pressure (10 per cent).
- ↓ Pulse pressure.
- ↓ Peripheral resistance (35 per cent)

83) Ventilatory changes

- Thoracic anatomy changes.
- ↑ Minute ventilation.
- ↑ Tidal volume.
- ↓ Residual volume.
- ↓ Functional residual capacity.
- Vital capacity unchanged or slightly increased.

84) Blood gas and acid–base changes

- ↓ pCO₂.
- ↑ pO₂
- pH alters little.
- ↑ Bicarbonate excretion.
- ↑ Oxygen availability to tissues and placenta

ANTENATAL CARE (Important Points from Ten Teachers - 19th edition)

1) The aims of antenatal care are:

- to prevent, detect and manage those factors that adversely affect the health of mother and baby;
- to provide advice, reassurance, education and support for the woman and her family;
- to deal with the 'minor ailments' of pregnancy;
- to provide general health screening

2) smoking during pregnancy is associated with fetal growth restriction, preterm labour, abruption and intrauterine fetal death

3) When a woman believes herself to be pregnant she is encouraged to make contact with a community midwife who will confirm the pregnancy with a urine and/or serum pregnancy test.

4) symptoms of pregnancy (breast tenderness, nausea, amenorrhoea, urinary frequency)

5) hear the fetal heart with the Doppler ultrasound from approximately 12 weeks onwards.

6) A pregnancy can be dated either by using the date of the first day of the last menstrual period (LMP) or, more accurately, by ultrasound scan

7) all women should be offered a dating scan, ideally between 10 and 14 weeks.

8) Benefits of a dating scan

- Accurate dating in women with irregular menstrual cycles or poor recollection of LMP
- Reduced incidence of induction of labour for 'prolonged pregnancy'
- Maximizing the potential for serum screening to detect fetal abnormalities
- Early detection of multiple pregnancies.
- Detection of otherwise asymptomatic failed intrauterine pregnancies

09) The crown-rump length (CRL) is used up until 13 weeks 6 days, and the head circumference (HC) from 14 to 20 weeks.

11) Booking examination will include the following: BP, abdominal exam, CVS, Respiratory system, full pelvic and breast examination, height & weight for BMI, urine dipstick test.

12) Booking investigations

Full blood count, Blood group and red cell antibodies, urinalysis, rubella, hep B, HIV, syphilis, haemoglobin studies.

13) Anaemia in pregnancy is most frequently caused by iron deficiency.

14) A full blood count is normally repeated at 28 weeks gestation.

15) Women found to be rhesus D negative will be offered prophylactic anti-D administration to prevent rhesus D iso-immunization and haemolytic disease of the fetus and newborn in future pregnancies.

16) Atypical red cell antibodies most commonly arise from previous blood transfusions and screening tests for these antibodies are performed for a second time in all women at 28 weeks gestation

17) A midstream urine sample should be sent early in pregnancy to detect asymptomatic bacteriuria

18) Presence of antibodies to the hepatitis B surface antigen represents immunity resulting either from previous infection or from immunization

19) The presence of the surface antigen itself, or the 'e' antigen, represents either a recent infection or carrier status.

20) The thalassaemias and sickle cell diseases are carried in an autosomal recessive fashion and the partner of a carrier, or fully affected woman, should also be offered carrier testing.

21) Screening for fetal abnormalities

- screening for Down's syndrome---> nuchal translucency scan at 11–14 weeks gestation.
- screening for neural tube defects----> maternal AFP levels at 15–20 weeks gestation
- screening for structural congenital abnormalities by ultrasound examination at 18 to 20 6 weeks

22) If risk factors for gestational diabetes are present, the woman should be offered a 2-hour 75 g oral glucose tolerance test (OGTT) at 24–28 weeks gestation

A previous history of gestational diabetes should prompt glucose monitoring, or an OGTT, at 16–18 weeks.

If these results are normal, the test should be repeated at 24–28 weeks

23) Risk factors for screening for gestational diabetes

- BMI above 30 kg/m²
- Previous baby weighing 4.5 kg, or above.
- Previous gestational diabetes.
- First-degree relative with diabetes.
- Family origin from high prevalence area

24) Symphysis-fundal height measurements should be performed with a tape-measure at every antenatal appointment from 25 weeks gestation

25) Fetal presentation and degree of engagement should be assessed from 36 weeks.

26) Scan weeks

- Booking (by 10w)---> Offer screening tests, Offer dating scan, Down's syndrome (DS) screening
- CVS (11w)
- Amniocentesis (15w)
- cardiocentesis (20w)
- Dating scan (10–14w)
- USG marker before 12w for accessing fetal age is CRL. (Not sure)
- CRL (13w+6days)
- HC (14-20w)
- AFP (15-20w)
- OGTT (24-28w)
- quadruple test if not yet screened for DS (16w)
- fetal anomaly scan/USG scan (18–20w)
- Anti-D prophylaxis for RhD-negative women + Second screen for anaemia and red cell antibodies (28w)
- Vitamin K for the newborn (36w)

Amniotic Fluid Points (Ten Teachers)

1) The function of the amniotic fluid is to:

- protect the fetus from mechanical injury;

- permit movement of the fetus while preventing limb contracture;
- prevent adhesions between fetus and amnion;
- permit fetal lung development in which there is two way movement of fluid into the fetal bronchioles;

absence of amniotic fluid in the 2nd trimester is associated with pulmonary hypoplasia

2) Surfactant production is maximal after 28 weeks.

3) Lymphocytes appear from 8 weeks

4) By the middle of the 2nd trimester, all phagocytic cells, T and B cells and complement are available

5) fetal circulation --> oxygenation occurs in the placenta, not the lungs;

6) The amniotic fluid is initially secreted by the amnion.

By the 10th week it is mainly a transudate of the fetal serum via the skin and umbilical cord

From 16 weeks gestation, the fetal skin becomes impermeable to water and the net increase in amniotic fluid

7) Amniotic fluid volume increases progressively

(10 weeks: 30 mL; 20 weeks: 300 mL; 30 weeks: 600 mL; 38 weeks: 1000 mL)

(40 weeks: 800 mL; 42 weeks: 350 mL).

8) Neither the amnion nor the chorion contains vessels or nerves, but both do contain a significant quantity of phospholipids

9) Chorionic function in the initiation of labour through the production of prostaglandins E2 and F2a

10) IUGR diagnosis by serial USG.

11) FGR causes--> Hypoxia, asphyxia, hypoxic ischemic encephalopathy, Hypoglycemia, hypothermia, necrotizing enterocolitis.

12) Low birth weight infants ---> Stroke, diabetes, HTN, CVS can occur.

13) Not all for small gestational age fetuses are growth restricted (small papa, small mama = small bacha)

PHYSIOLOGICAL CHANGES IN PREGNANCY POINTS

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