

ICOG FOGSI Recommendations for Good Clinical Practice

Routine Antenatal Care for the Healthy Pregnant Women

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This **Good Clinical Practice Recommendations** represents the view of the members which was arrived at after careful consideration of the evidence available. The **Good Clinical Practice Recommendations** are aimed at establishing the basic minimum care required for a normal healthy pregnant lady taking into account the paucity of resources available in our country in rural settings. These **Good Clinical Practice Recommendations** are based on the current recommendations from the Royal College of Obstetricians and Gynaecologists and the American college of Obstetricians and Gynaecologists. Appropriate modifications have been made taking into account the cultural and financial diversity present in our country, with the final aim being to reduce all preventable maternal deaths and disabilities.

These recommendations been developed with the following aims.

1. They cover the clinical antenatal care that all healthy women with an uncomplicated singleton pregnancy should receive and baseline care for all pregnancies.
2. It does not cover the additional care that women thought to be at increased risk of complications should be offered (see Appendix 1).

All FOGSI members are expected to take it fully into account when exercising their clinical judgment. The **Good Clinical Practice Recommendation** does not, however, override the individual responsibility of health professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian.

The **Good Clinical Practice Recommendations** cover baseline care for all pregnant women. Some women will require care additional to that described based on their clinical condition and complications of pregnancy and these need to be addressed based on the judgment of the treating doctor. **These Good Clinical Practice Recommendations do not apply to high risk pregnancies and/or complicated pregnancies.**

Summary of Good Clinical Practice Recommendations

The **good clinical practice recommendations** can be divided into two parts for care of a routine ante-natal patient

- a. Basic essential care recommended for all pregnant women
- b. Additional care and investigations to be preferably offered if available for routine ante-natal care of normal healthy woman

All Pregnant women should be offered evidence-based information and support to enable them to make informed decisions regarding their care. Information should include details of where they will be seen and who will undertake their care. Addressing women's choices should be recognized as being integral to the decision-making process.

The need for Ante-natal care needs to be stressed so that as far as possible all high risk cases are identified early. **The advantages of hospital delivery should be stressed upon. Ideally, all pregnant women must at least have a trained birth attendant.**

Please note that these recommendations do not apply to high-risk pregnancies or complicated pregnancies.

Basic essential care recommended for all pregnant women

1. All pregnant women must be counselled for regular Antenatal visits .minimum one visit in first trimester , monthly visits till 30 weeks , every 2 weekly till 36 weeks and weekly visits till delivery
2. Blood investigations for Hb, Blood grouping and Rh Typing, VDRL, Blood sugar –R, and a Routine Urine examination with albumin & sugar should be done.
3. A repeat Hb and Urine Sugar to be done in third trimester
4. Immunization with 2 doses of TT / Td
5. Iron, Folic Acid and Calcium Supplements
6. At least one Ultrasound for congenital anomalies should be done before 20 weeks of pregnancy.
7. Delivery by a doctor or a trained birth attendant
8. Education on nutrition, diet and hygiene
9. Education in breast feeding and birth spacing and contraception methods

Additional care and investigations to be preferably offered if available for routine ante-natal care of normal healthy woman

Besides the basic essential ANC the following should be preferably offered if easily available:

1. Preconception counselling and care
2. Counselling for HIV, HbsAg and HCV testing
3. Counselling and screening for Thalassaemia, Down's syndrome
4. Repeat blood for Hb, Blood sugar screening and Urine Evaluation in each trimester
5. Ultrasound evaluation once in each trimester
6. Institutional delivery recommended
7. Additional screening for infections, growth retardation, thyroid dysfunctions

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1. Introductions to the FOGSI-ICOG Good clinical Practice Recommendations

1.1 Woman-centred care and informed decision making.

The principles outlined in this section apply to all aspects of the antenatal care guideline.

- 1.1.1 Pregnant women should have written/pictorial information about antenatal care with stress on diet, anaemia prevention and regular check ups. Wherever, it is feasible and available, they should be offered opportunities to attend antenatal classes. All information should be made available in local languages and in pictorial formats to make for easy understanding and acceptance.
- 1.1.2 Pregnant women should be offered evidence-based information and support to enable them to make informed decisions regarding their care. Information should include details of where they will be seen and who will undertake their care. Addressing women's choices should be recognized as being integral to the decision-making process.
- 1.1.3 At the first visit, pregnant women should be offered information about: the pregnancy-care services and options available; lifestyle considerations, including dietary information; and screening tests.
- 1.1.4 Pregnant women should be informed about the purpose of any screening test before it is performed.
- 1.1.5 At each antenatal appointment, trained personnel and /or doctors should offer consistent information and clear explanations. They should provide pregnant women with an opportunity to discuss issues and ask questions. The information should be provided in a format and language which the pregnant woman understands.
- 1.1.6 Communication and information should be provided in a form that is accessible to pregnant women who have additional needs, such as those with physical, cognitive, or sensory disabilities and those who do not speak or read.

1.2 Provision and organization of care

1.2.1 Who provides care?

- 1.2.1.1 Auxiliary Nurse Midwife (ANM) and / or doctor should provide ANC for women with an uncomplicated pregnancy. Involvement of an obstetrician should be recommended in cases when complications are present or anticipated.

1.2.2 Continuity of care

- 1.2.2.1 Antenatal care should be provided by doctor / ANM's with whom the woman feels comfortable. There should be continuity of care throughout the antenatal period.
- 1.2.2.2 A system of clear referral paths should be established so that pregnant women who require additional care are managed and treated by the appropriate specialist teams when problems are identified.

1.2.3 Where should antenatal appointments take place?

1.2.3.1 Antenatal care should be readily and easily accessible to all women and should be sensitive to the needs of individual women and the local community.

1.2.4 Documentation of care

1.2.4.1 Structured maternity records should be used for antenatal care.

1.2.4.2 Maternity services should have a system in place whereby women preferably carry a copy of their own case notes.

1.2.4.3 A standardized, national maternity record with an agreed minimum data set should be developed and used. This will help to provide the recommended evidence-based care to all pregnant women.

1.2.5 Frequency of antenatal appointments

1.2.5.1 A schedule of antenatal appointments should be determined by the function of the appointments. For a woman with an uncomplicated pregnancy, a schedule of appointments as per Appendix 2 is recommended.

1.2.6 Gestational age assessment: LMP and ultrasound

1.2.6.1 Pregnant women should be offered an early ultrasound scan to determine gestational age (in lieu of last menstrual period [LMP] for all cases) and to detect multiple pregnancies whenever possible. This will ensure consistency of gestational age assessments, improve the performance of serum screening for Down's syndrome and reduce the need for induction of labour after 41 weeks.

1.2.7 What should happen at antenatal appointments?

The content of the first appointment, and all appointments are recommended as per the list in Appendix 2.

1.3 Lifestyle considerations

1.3.1 Working during pregnancy

1.3.1.1 Pregnant women should be informed of their maternity rights and benefits. The majority of women can be reassured that it is safe to continue working during pregnancy provided there are no medical or obstetrical complications.

1.3.2 Nutritional supplements

1.3.2.1 Pregnant women (and those intending to become pregnant) should be informed that dietary supplementation with folic acid, before conception and up to 12 weeks' gestation, reduces the risk of having a baby with neural tube defects (anencephaly, spina bifida). The recommended dose is 400 micrograms per day.

1.3.2.2 Iron, protein and calcium supplementation should be offered routinely to all pregnant women. This is because there is high incidence of anaemia, hypoproteinaemia and osteopenia in the Indian Population due to poor diet and repeated pregnancies.

1.3.3 Prescribed medicines

1.3.3.1 Prescription medicines during pregnancy should be limited to circumstances where the benefit outweighs the risk.

1.3.4 Exercise in pregnancy

1.3.4.1 Pregnant women should be informed that a moderate course of exercise during pregnancy is not associated with adverse outcomes.

1.3.5 Sexual intercourse in pregnancy

1.3.5.1 Pregnant woman should be informed that sexual intercourse in pregnancy is not known to be associated with any adverse outcomes.

1.3.6 Alcohol and smoking in pregnancy

1.3.6.1 Due to increased fetal risks It is suggested that women should avoid alcohol consumption when pregnant.

1.3.6.2 Pregnant women should be informed about the specific risks of smoking/ tobacco use during pregnancy (such as the risk of having a baby with low birth weight, IUGR and preterm) and should be encouraged to quit.

1.3.7 Travel during pregnancy

1.3.7.1 Travel is safe. However patient should be counselled regarding risks of long distance travel, especially the risk of DVT with long flights.

1.3.7.3 Pregnant women should be informed that, if they are planning to travel abroad, they should discuss considerations such as flying, vaccinations and travel insurance with their doctor.

1.4 Management of common symptoms of pregnancy

1.4.1 Nausea and vomiting in early pregnancy

1.4.1.1 Women should be informed that most cases of nausea and vomiting in pregnancy will resolve spontaneously by end of first trimester and that nausea and vomiting are not usually associated with a poor pregnancy outcome. If a woman requests or would like to consider treatment, non-pharmacological agents or safe anti-emetics. In hyper-emesis hospital admission may be needed.

1.4.2 Heartburn

1.4.2.1 Women who present with symptoms of heartburn in pregnancy should be offered information regarding lifestyle and diet modification.

1.4.2.2 Antacids may be offered to women whose heartburn remains troublesome despite lifestyle and diet modification.

1.4.3 Constipation

1.4.3.1 Women with constipation in pregnancy should be offered information regarding diet modification, such as ispaggol (psyllium husk) supplementation and medication if needed.

1.4.4 Haemorrhoids

1.4.4.1 In the absence of evidence of the effectiveness of treatments for haemorrhoids in pregnancy, women should be offered information concerning diet modification. If clinical symptoms remain troublesome, standard haemorrhoid creams should be considered.

1.4.5 Varicose veins

1.4.5.1 Women should be informed that varicose veins are a common symptom of pregnancy that will not cause harm and that compression stockings can improve the symptoms but will not prevent varicose veins from emerging.

1.4.6 Vaginal discharge

1.4.6.1 Women should be informed that an increase in vaginal discharge is a common physiological change that occurs during pregnancy. If this is associated with itch, soreness, offensive smell or pain on passing urine there may be an infective cause. In these cases, evaluation and treatment should be considered.

1.4.6.2 A 7 day course of a topical co-trimazole is an effective treatment and should be considered for vaginal Candidal infections in pregnant women.

1.4.7 Backache

1.4.7.1 Backache is a common problem which only increases as the pregnancy advances. Women should be informed that exercising in water, massage therapy and group or individual back care classes might help to ease backache during pregnancy. **1.5 Clinical examination of pregnant women**

1.5.1 Measurement of weight

1.5.1.1 Maternal weight and height should be measured at the first antenatal appointment, and the woman's BMI calculated (weight [kg]/height[m] ²).

1.5.1.2 Regular weight check during pregnancy should be done with every ANC visit.

1.5.2 Blood Pressure Measurements

1.5.2.1 Routine evaluation of blood pressure at every ANC visit and more importantly, look for even minimal rise in BP or fluctuations. These are predictive for the development of IUGR and PIH.

1.5.2.2 Large double cuff for obese women should be used for accurate readings.

1.5.3 Pelvic examination

1.5.3.1 Routine antenatal pelvic examination does not accurately assess gestational age, nor does it accurately predict preterm birth or cephalopelvic disproportion. It is recommended when ultrasound facilities for gestational age are not available.

1.5.4 Abdominal examination

1.5.4.1 Every ANC visit after the first trimester should include abdominal examination for checking that the uterine size is corresponding with period of gestations. Early IUGR can be detected by inappropriate growth. Multiple pregnancy, hydramnios etc. can be suspected if there is excessive growth.

For details see point 1.12.

1.5.5 Domestic violence

1.5.5.1 in our country, there is a high incidence of domestic violence, even when the woman is pregnant. Healthcare professionals need to be alert to the symptoms or signs of domestic violence and women should be given the opportunity to disclose domestic violence in an environment in which they feel secure.

1.6 Screening for haematological conditions

1.6.1 Anaemia

1.6.1.1 Pregnant women should be offered screening for anaemia.

Screening should take place early in pregnancy (at the first appointment) and at 28 weeks when other blood screening tests are being performed. This allows enough time for treatment if anaemia is detected. Haemoglobin levels outside the normal range for pregnancy (that is, 10 g/dl at first contact) should be investigated.

1.6.1.2 In our country there are ethnic groups who are at risk for Thalassaemia. Whenever possible testing for it and evaluation of the fetus if needed should be offered

1.6.2 Blood grouping

1.6.2.1 Women should be offered testing for blood group and RhD status in early pregnancy.

1.6.2.2 It is recommended that post partum anti-D prophylaxis is offered to all non-sensitized pregnant women who are RhD negative.

1.6.2.3 Women should be screened for Rh antibodies at first visit and again at 28 weeks and if positive they should be offered referral to a specialist centre for further investigation and advice on subsequent ANC.

1.7 Screening for fetal anomalies

1.7.1 Screening for structural anomalies

1.7.1.1 Pregnant women should be offered an ultrasound scan to screen for structural anomalies, preferably between 18 and 20 weeks' gestation. There should be care taken to adhere to all aspects of the PC-PNDT Act and under no circumstances should the pregnant lady be informed about the sex of the child.

1.7.2 Screening for Down's syndrome

1.7.2.1 Pregnant women may be offered screening for Down's syndrome with a test which provides the current standard of a detection rate above 60% and a false-positive rate of less than 5%. The following tests meet this standard:

- From 11 to 14 weeks
 - Nuchal translucency (NT)
 - The combined test (NT, hCG and PAPP-A)
- From 14 to 20 weeks
 - The triple test (hCG, AFP and uE3)
 - The quadruple test (hCG, AFP, uE3, inhibin A)

- From 11 to 14 weeks **and** 14 to 20 weeks
 - The integrated test (NT, PAPP-A + hCG, AFP, uE3, inhibin A)
 - The serum integrated test (PAPP-A + hCG, AFP, uE3, inhibin A).

These tests are recommended wherever possible, and not mandatory as there may financial and logistic problems in these tests being made available everywhere, especially in remote rural areas.

1.8 Screening for infections

1.8.1 Asymptomatic bacteriuria

1.8.1.1 Pregnant women should be offered routine screening for asymptomatic bacteriuria by midstream routine urine examination. Urine culture should be asked where indicated. Identification and treatment of asymptomatic bacteriuria reduces the risk of preterm birth.

1.8.2 Hepatitis B virus

1.8.2.1 Serological screening for hepatitis B virus should be offered to pregnant women so that effective postnatal intervention can be offered to infected women to decrease the risk of mother-to-child-transmission.

1.8.3 HIV

1.8.3.1 Pregnant women should be offered screening for HIV infection early in antenatal care because appropriate antenatal interventions can reduce mother-to-child transmission of HIV infection and counselling should be done.

1.8.3.2 A system of clear referral paths should be established in each unit or department so that pregnant women who are diagnosed with an HIV infection are managed and treated by the appropriate specialist teams with retroviral therapy as recommended.

1.8.4 Syphilis

1.8.4.1 Screening for syphilis should be offered to all pregnant women at an early stage in antenatal care because treatment of syphilis is beneficial to the mother and fetus.

1.8.5 Bacterial Vaginosis

1.8.5.1 Recurrent vaginal infections and high incidence of preterm labour are interlinked, and hence whenever possible and feasible pregnant women should have a vaginal smear to r/o possibility of bacterial vaginosis.

1.9 Screening for clinical conditions

1.9.1 Screening for anaemia

1.9.1.1 Due to nutritional deficiency and repeated child births almost 60% of all pregnant women have Hb levels below 10gm%. Screening in early pregnancy followed by iron supplementation should be mandatory for all pregnant women.

1.9.1.2 Where ever possible, a repeat Hb estimation must be done in third trimester to identify women still at risk and appropriate referrals if necessary.

1.9.1.3 In our country there are ethnic groups who are at risk for Thalassaemia. Whenever possible testing for it and evaluation of the fetus if needed should be offered

1.9.2 Pre-eclampsia

1.9.2.1 At first contact a woman's level of risk for pre-eclampsia should be evaluated so that a plan for her subsequent schedule of antenatal appointments can be formulated. The likelihood of developing pre-eclampsia during a pregnancy is increased in women who:

- are nulliparous
- are aged 35 or older
- have a family history of pre-eclampsia
- have a prior history of pre-eclampsia
- obese women
- have a multiple pregnancy or pre-existing vascular disease (e.g. hypertension or diabetes).

1.9.2.2 With every ANC visit, blood pressure is measured in pregnancy and if possible, urine sample should be tested at the same time for proteinuria.

1.9.2.3 Pregnant women should be informed of the symptoms of advanced pre-eclampsia because these may be associated with poorer pregnancy outcomes for the mother and/or baby or both. Symptoms include headache; problems with vision, such as blurring or flashing before the eyes; abdominal pain just below the ribs; vomiting and sudden swelling of face, hands or feet.

1.9.3 Preterm birth

1.9.3.1 Routine vaginal examination to assess the cervix is not an effective method of predicting preterm birth and should not be recommended.

1.9.3.2 Although cervical shortening identified by transvaginal ultrasound examination and increased levels of fetal fibronectin are associated with an increased risk for preterm birth, the evidence does not indicate that this information improves outcomes; therefore, neither routine antenatal cervical assessment by transvaginal ultrasound nor the measurement of fetal fibronectin should be used to predict preterm birth in healthy pregnant women.

1.9.4 Placenta Previa

1.9.4.1 Because most low-lying placentas detected at a 20-week anomaly scan will resolve by term. another trans-abdominal scan at 36 weeks. If the trans-abdominal scan is unclear, a transvaginal scan should be offered if facilities exist.

1.9.4.2 Under ideal conditions a third trimester ultrasound should be offered for all pregnant patients. However, financial and logistic constraints may not allow this in all patients. Hence, it should be mandatory in all patients who have any high risk factors and individualized in patients with normal pregnancy.

1.9.5 Gestational diabetes mellitus

1.9.5.1 Ideally, every pregnant woman must be offered routine screening for gestational diabetes mellitus by blood sugar estimations in every pregnant woman. However, financial and logistic problems may not be able to support this on routine basis. Hence, a urine sugar

examination during ANC visit will help in identifying normal women at risk. Also, identify women with risk factors and these women should be screened throughly.

1.9.5.2 Whenever possible, a glucose challenge test using 75gm glucose load, is the ideal method of screening for gestational diabetes.

1.9.6 Thyroid deficiency

1.9.6.1 In our country thyroid deficiency is endemic in many areas, especially in the northern regions. Thyroid screening should preferably be done at least once, especially in all pregnant women hailing from these areas.

1.10 Immunization during pregnancy

1.10.1 All pregnant women should be immunized against tetanus and diphtheria as per the recent WHO guidelines. However, places where TD is not available, immunization should be with TT.

1.10.2 2 doses of TD/ TT should be given 4-6 weeks apart to all pregnant women during the ANC period after 16 weeks onwards.

1.10.3 Rubella , yellow fever (all vaccines with live virus should be avoided.)

1.11 Diet and hygiene during Pregnancy

1.11.1 Adequate information of a balanced diet should be provided to all pregnant women

1.11.2 Pictorial charts and if possible suggested nutrients should be given to all pregnant women with advice on improvements in daily diet needs.

1.11.3 Care should be taken to see that there is enough, proteins, carbohydrates, calcium, iron and fats in the daily diet and if not, the woman should be advised appropriately by the ANM's or the doctor.

1.11.4 Pregnant women should be informed of primary infection prevention measures, such as:

- washing hands before handling food
- Thoroughly washing all fruit and vegetables before eating
- Thoroughly cooking raw meats and fish
- wearing gloves and thoroughly washing hands after handling soil and farming
- avoiding cat/cow faeces in litter or in soil.

1.12 Fetal growth and well-being

1.12.1 Abdominal palpation for fetal presentation

1.12.1.1 Fetal presentation should be assessed by abdominal palpation at 36 weeks or later, when presentation is likely to influence the plans for the birth..

1.12.1.2 Suspected fetal malpresentation should be confirmed by an ultrasound assessment and referred for appropriate management by Obstetrician.

1.12.2 Measurement of symphysis–fundal distance

1.12.2.1 Pregnant women should be offered estimation of fetal size at each antenatal appointment to detect small- or large-for gestational- age infants.

1.12.2.2 Symphysis–fundal height should be measured at each antenatal appointment. Serial fundal height measurement may be documented at each ANC.

1.12.3 Auscultation of fetal heart

1.12.4.1 Auscultation of the fetal heart may confirm that the fetus is alive but is unlikely to have any predictive value. However, auscultation of the fetal heart may provide reassurance to the women.

1.12.4 Routine monitoring of fetal movements

1.12.3.1. All pregnant women should be told about the importance of fetal movements. They should be advised to report to the ANM or the doctor if they do not feel any movements for 12 hours or more.

1.12.5 Cardiotocography

1.12.5.1 The evidence does not support the routine use of antenatal electronic fetal heart rate monitoring (cardiotocography) for fetal assessment in women with an uncomplicated pregnancy. Cardiotocography may be offered in selected cases, if available.

1.12.6 Umbilical and uterine artery Doppler ultrasound

1.12.7.1 The use of umbilical artery Doppler ultrasound for the prediction of fetal growth restriction may be offered if available. However, it is not recommended for routine, uncomplicated pregnancies, unless there are any maternal or fetal indications or specific indication.

2. Education on breast feeding and infant care

2.1 When ever possible all pregnant women should be taken around the post-natal ward and allowed to interact with just delivered women to understand and be prepared for normal labour

2.2 When ever possible the pregnant women should be taught how to breast feed their babies and to look after the hygiene

2.3 The proper care to be followed after breast feeding, burping the infant and how to position the infant when sleeping should all be taught to the women during the ANC period itself.

2.4 Pre-pregnancy classes on labour and infant care can be offered whenever possible.

3. Contraception and birth spacing

3.1 The importance of birth spacing should be stressed and they should be informed about all the methods that can be safely used during the post-partum period when they are breast feeding their babies. Effective contraception with risks, advantages and benefits must be explained. They should also be explained about the difference between spacing and permanent methods.

3.2 At the first post-natal visit, IUCD / Injectable contraceptive / POP / Implant / preference for TL should all be offered as the basket of choices. All these should be offered with adequate counseling and proper selection according to the WHO criteria for each method. Importance of LAM should be stressed for all women and breast feeding should be encouraged.

Appendix 1: Women requiring additional care

These recommendations are offered for the baseline clinical care for all pregnant women but it does not offer information on the additional care that some women will require.

Pregnant women with the following conditions usually require care additional to that detailed in these **Good Clinical Practice Recommendations**. These will qualify as **high risk pregnancies** and/or complicated pregnancies and should be managed according to the clinical judgment of the obstetrician.

1. Underweight (BMI less than 18 at first contact)
2. Obesity (BMI 35 or more at first contact)
3. Extremes of age
4. Anaemia
5. Cardiac disease
6. Hypertension (essential as well as pregnancy induced)
7. Renal disease
8. Thyroid, diabetes and other endocrine disorders
9. Epilepsy requiring anticonvulsant drugs
10. Asthma and other respiratory disorders
11. Hematological disorder
12. HIV or HBV infected
13. Drug use such as heroin, cocaine (including crack cocaine) and ecstasy
14. Autoimmune disorders
15. Psychiatric disorders
16. Malignant disease

Women who have experienced any of the following in previous pregnancies

- Recurrent pregnancy loss
- Preterm birth
- Severe pre-eclampsia, HELLP syndrome or eclampsia
- Rhesus isoimmunisation or other significant blood group antibodies
- Uterine surgery including caesarean section, myomectomy or cone biopsy
- Antepartum or postpartum haemorrhage
- previous MRP
- Puerperal psychosis
- Grand multiparity (more than five pregnancies)
- A stillbirth or neonatal death
- A baby with a congenital anomaly (structural or chromosomal).

Appendix 2: Antenatal appointments

(Schedule and content)

The schedule below, which has been determined by the purpose of each appointment, presents the recommended number of antenatal care appointments for women who are healthy and whose pregnancies remain uncomplicated in the antenatal period

First appointment(s)

Ideally, the first appointment needs to be earlier in pregnancy (prior to 12 weeks). This is a trend we need to educate our patients on as the first trimester offers a large volume of information. There may be need in early pregnancy for two appointments. At the first (and second) antenatal appointment:

- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by written information (on topics such as diet and lifestyle considerations, pregnancy care services available, maternity benefits and sufficient information to enable informed decision making about screening tests)
- Identify women who may need additional care (see Appendix 1) and plan pattern of care for the pregnancy
- Check blood group and RhD status
- Offer screening for anaemia, hepatitis B virus, HIV, rubella susceptibility and syphilis
- Offer screening for asymptomatic bacteriuria
- Offering screening for Down's syndrome if available
 - nuchal translucency at 11 to 14 weeks
 - Serum screening at 14 to 20 weeks.
- Offer early ultrasound scan for gestational age assessment as far as possible. Ultrasound scans to determine gestational age using:
 - crown–rump measurement if performed at 10 to 13 weeks
 - bi-parietal diameter or head circumference at or beyond 14 weeks
- Offer ultrasound screening for structural anomalies (20 weeks)
- Weight and BP Record.

16–20 weeks

The next appointment should be scheduled at 16 weeks to:

- review, discuss and document the results of all screening tests undertaken; reassess planned pattern of care for the pregnancy and identify women who need additional care (see Appendix 1)
- investigate a haemoglobin level of less than 10 g/dL and start iron supplementation
- Measure blood pressure and test urine for proteinuria
- At 18–20 weeks, an ultrasound scan should be performed for the detection of structural anomalies. For a woman whose placenta is found to extend across the internal cervical os at this time, another scan in third trimester should be offered and the results of this scan reviewed at next appointment.

24 -28 weeks

At this appointment:

- Measure and plot symphysis–fundal height
- Measure blood pressure and test urine for proteinuria
- Give information with an opportunity to discuss issues and ask questions
- Offer screening for gestational Diabetes if possible
- Offer a second screening for anemia
- Offer anti-D to rhesus-negative women where available and indicated

30-36 weeks

At this visit :

- Measure blood pressure and test urine for proteinuria
- Measure and plot symphysis–fundal height
- Review, discuss and document the results of screening tests undertaken at 28 weeks
- Reassess planned pattern of care for the pregnancy and identify women who need additional care (see Appendix 1)

36-40 weeks

At this appointment:

- Measure blood pressure and test urine for proteinuria
- Measure and plot symphysis–fundal height
- check position of baby
- For women whose babies are in the breech presentation consider external cephalic version where expertise is available or refer to a district hospital for further management
- Review ultrasound scans report if placenta extended over the internal cervical os at previous ultrasound and if needed refer to a district hospital for further management.

After 40 weeks

For women who have not given birth by 41 weeks:

- Closer antepartum vigilance
- Measure blood pressure and test urine for proteinuria
- Measure and plot symphysis–fundal height
- check position of baby
- Review and if needed refer to a district hospital for further management
- Consider induction if inducible and favorable cervix.

General

Throughout the entire antenatal period, healthcare providers should remain alert to signs or symptoms of conditions which affect the health of the mother and fetus, such as anaemia, domestic violence, pre-eclampsia and diabetes, malpresentations and IUGR etc.

If any of the high risk factors are detected, then, refer the patient to higher center for further management under expert guidance.

These recommendations will help us in identifying women at risk and hence help in early interventions and prevention of mishaps.

Our aim is to reduce maternal and morbidity by these early detections and interventions.

References

1. RCOG guidelines for care of a healthy pregnant patient
2. ACOG care of normal pregnant patient'
3. WHO book on EmOc and Basic Obstetric care for pregnant patients
4. UNFPA manual in Obstetric care