Antenatal Care

Provision of care Care should be centred on the pregnant woman - keeping her fully informed on the progress of her pregnancy, and providing her with evidence based information and support to make informed decisions.[1]

She should initially be given:[1]

1. Information on where antenatal care will be offered and by whom
2. The choice of attending antenatal classes
3. Information in writing about antenatal care including the book 'The Pregnancy Book' available from Health Departments

- Patients who suffer from loss of sight or hearing, learning difficulties or poor comprehension of English should have the information provided in a way that is understandable to them.
- In uncomplicated pregnancies, midwife/GP care should normally be offered with specialist care readily available when complications occur.
- The patient should be seen by a small group of professionals who provide continuity of care.
- Patients should carry their own notes - Maternity records should be structured to help provide the require level of evidence-based care.
- All women should be advised to take 400µg of folic acid up to 12 weeks gestation (and those intending to become pregnant) to reduce incidence of fetal neural tube defects.
- Assessment of gestational age should be based on an early ultrasound scan rather than the last menstrual period. Such scans should be offered to all women, ensuring consistency of gestational age assessments, improve the accuracy of Down's screening assessment, and decisions on induction of labour after 41 weeks.

Further advice to patients

- Working - advise on maternity rights and benefits and reassure patient on how safe it is to continue working in pregnancy (check occupation for exposure to harmful agents)
- Nutrition -advise that taking folic acid supplements during first 12 weeks of pregnancy (preferably before getting pregnant) can reduce the risk of spina bifida. Vitamin A is possibly teratogenic so liver, liver products and supplements should be avoided. Iron and vitamin D supplements should not be routinely offered.
- Nausea and vomiting of pregnancy generally resolves by 16-20 weeks gestation; ginger and P6 acupressure may be beneficial. Antihistamines have also been used.
- Diet - advise on avoiding listeriosis by not drinking unpasteurised milk and not eating any type of paté, nor soft and blue veined cheeses (eg Camembert and Danish blue) nor uncooked or undercooked pre-prepared meals.
  Advise on reducing risk of salmonella infection by avoiding raw or uncooked eggs or products that contain them and undercooked meat, particularly chicken.
  Heartburn - try lifestyle and dietary advice (small meals, raise head of bed etc), may need antacids.
- Prescription and self medication - use as few medicines as possible during pregnancy (only when benefit outweighs risk) - this includes OTC medication and complementary therapies (few products have been shown to be definitely safe during pregnancy).
- Exercise - moderate exercise has not been shown to cause any harm but patient should be warned the dangers of highly energetic and contact sports that would risk damage to the abdomen, falls or excessive joint stress. Scuba diving should be avoided - it can cause fetal birth defects and fetal decompression disease.
- Sexual intercourse - this has not been shown to cause any harm during pregnancy.
- Alcohol - patients should be advised that excessive consumption damages the fetus and it is suggested that they limit their consumption to =1 unit per day (1/2 pint beer, one glass of wine).
- Smoking - patients should be advised of risks to baby including low birthweight and prematurity. Should offer help with the cessation of smoking or at least cutting down. The use

of cannabis may be harmful to the fetus and is also associated with smoking and should be discouraged.
- Flying - associated with increased risk of DVT and not known if further increased in pregnancy. Use of compression hosiery reduces the risk. Also discuss vaccinations and travel insurance if travelling abroad.
- Car travel - advise on proper use of seat belts with belts above and below bump rather than over it.

Antenatal appointments The following number of appointments is generally recommended in uncomplicated pregnancies:[1]

Nulliparous women - 10
Parous women - 7

Information about the timing and function of these appointments should be given to the woman in writing with the chance to discuss them with her doctor or midwife. Appointments should have a focus and structure and include routine tests where possible.

Appointment schedule All appointments should include measuring BP and testing urine for proteinuria. Pre-eclampsia occurs more frequently in those with a previous history, the nulliparous, multiple pregnancies, those aged >40, those with a close family history, those where BMI> 35 at first presentation, those with pre-existing vascular disease (eg hypertension or diabetes). They should also be used as an opportunity to give information and allow patient to ask questions and discuss any topics concerning her. Domestic violence is a subject that pregnant women should be encouraged to discuss openly.

First appointment (should be before 12 weeks of pregnancy) May need to be two appointments because of volume of information required to be imparted. All information should initially be offered verbally and backed up in writing with an opportunity to discuss and ask questions.

- Should cover lifestyle topics such as diet, alcohol, smoking, exercises etc. together with antenatal care services available and maternity benefits.
- Initial measurement of weight, BMI and BP. Repeated weighing is only appropriate in later pregnancy where it is likely to affect management.
- Clinician needs to provide enough information to make an informed decision about undergoing available screening tests.
    - Offer screening of mother for anaemia, red cell allo-antibodies, HBV, HIV, rubella susceptibility, syphilis, asymptomatic bacteriuria. Arrange as agreed. There is no evidence to support routine screening for gestational diabetes.[1]
    - Offer early scan for assessment of gestational age preferably performed at 10-13 weeks measuring the crown-rump length. Alternatively, at or after 14 weeks measure bi-parietal diameter or circumference of head.
    - Offer screening of fetus for Down's syndrome (ensure patient is aware of right to refuse tests and that they carry 60% detection rate and 5% false positive rate) and arrange as agreed (see antenatal screening):
        - Nuchal translucency on ultrasound before 14 weeks
        - Serum tests at 14-20 weeks
    - Offer screening of fetus for other structural anomalies (ultrasound scan at 20 weeks) if available
- Need to identify those women who may require extra care and create a plan for this. Ask about any current or previous significant medical or psychiatric illnesses. Use of the Edinburgh PND score to screen antenatally is NOT appropriate.[1]
  Routine breast and pelvic examinations are not recommended as not shown to give any benefits. Where appropriate, the question of genital mutilation should be raised sensitively.

16 weeks This appointment should be used to review the results of earlier tests, discuss them with the

patient and if necessary institute a changed pattern of antenatal care having identified those women who require additional care. Consider offering oral iron to women with a haemoglobin <11g/dl.

18-20 weeks This appointment is for women who have agreed to a test for fetal structural anomalies. If the placenta is found to cover the internal cervical os, the scan should be repeated at 36 weeks.

25 weeks This appointment is for nulliparous women and as well as routine procedures (eg BP check, proteinuria screening) should include measurement and plotting of symphysis-fundal height. N. B. All appointments from this point should routinely include measurement and plotting of symphysis-fundal height.

28 weeks This appointment is for all pregnant women and in addition to routine procedures should be offered another opportunity to screen for anaemia and atypical red cell allo-antibodies, investigate and treat haemoglobin <10.5 g/dl and offer anti-D prophylaxis for rhesus-negative women.

31 weeks This appointment is for nulliparous women and as well as routine procedures should include a review of screening tests performed at 28 weeks with reassessment of care needs and identification of those that need extra care.

36 weeks This appointment is for all pregnant women and in addition to routine procedures should allow for checking of the position of the fetus with external cephalic version offered to women with a breech presentation. Where previous scan showed the placenta covering the internal cervical os, this should be reviewed.

38 weeks This appointment is for all pregnant women for all routine procedures to be performed.

40 weeks This appointment is for all pregnant women for all routine procedures to be performed.

41 weeks This appointment is for all pregnant women who are not yet given birth and in addition to all routine procedures patient should be offered a membrane sweep and/or induction of labour.

References Used

1. NICE Antenatal care - Routine care for healthy pregnant women (OCT 2003) available from RCOG website

Internet and Further Reading

- Maternity rights [www.dti.gov.uk]
- Maternity benefits [www.dwp.gov.uk]
- Bandolier - Use of acupressure and location of P6 Site

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