

CLINICAL GUIDANCE NOTES

1.1 PREGNANCY CARE FOR HEALTHY WOMEN

Written/Produced By:	Title/Directorate	Date:
Nicky Mason Debra Young Anne Heseltine Jenny Crowe and Chris Cowling Gayle Clarke	Obstetrics and Gynaecology Senior Midwife Risk Management Antenatal and community Matrons Specialist Midwife Practice development	October 04 2008 June 2009 May 2010
Sabine Turpin	Specialist Midwife Antenatal and newborn screening	May 2010

Person Responsible for Monitoring Compliance & Review	Chair of the Guideline Implementation Group for Maternity Services
Signature & Date	

Multi-disciplinary Evaluation/Approval

Name	Title/Speciality	Date:
Clinical Directorate	Obstetrics and Gynaecology	October 04 August 08
Clinical Guideline Group		October 04 August 08 October 09 May 2010
Strategic Business Unit, women's Health operational meeting		October 09 June 2010

Ratification Committee

Issue Number <small>(Administrative use only)</small>	Date of Issue & Version	Next Review Date	Date Ratified	Name of Committee/Board/Group
2004158	Nov 04 v1	Nov 07	26/11/04	Clinical Governance and Risk Management Committee
2008228	October 2008 V2	August 2011	16/10/09	Clinical Governance Committee
2009290	Dec 2009 v3	August 2012	14/12/09	Clinical Board
2010144	July 2010 v4	July 2013	19/07/10	Clinical Board

1.1 PREGNANCY CARE FOR HEALTHY WOMEN

1. Relevant to:

1.1 This guideline applies to all healthcare professionals providing maternity care.

2. Purpose of Guidance:

2.1 This document provides guidance on pregnancy care for healthy women with an uncomplicated singleton pregnancy.

2.1.1 This guideline complements the Children's national Service Frameworks (England and Wales).

3. Refer to:

3.1.1 Guideline 1.10 Diminished fetal movements

3.1.2 Guideline 1.12 Measurement of Symphysis Fundal Height (SFH)

3.1.3 Guideline 1.2 Anti D Prophylaxis for women who are RhD Negative

3.1.4 Guideline 2.16 Breech Presentation including External Cephalic Version (ECV)

3.1.5 Guideline 2.26 Guidelines for Management of Placenta Praevia

3.1.6 Guideline 2.9 Induction of labour

3.1.7 Guideline 8.1 Women who decline Blood Products

3.1.8 Guideline 8.5 Domestic violence

3.1.9 Guideline 8.7 Mental Health and Perinatal Depression

3.1.10 Guideline 8.9 Guidelines for Management of Non Attendance for Antenatal Care and "No Access" Postnatal Visits.

3.1.11 Guideline 8.10 Substance Misuse in Pregnancy

3.1.12 Guideline 8.16 communication of test results.

Section	page
4.1 Introduction	4
4.2 Background	4
4.3 Principles	4
4.4 Staff Responsibilities	5
4.5 Schedule of visits	5
4.5.1 First Contact (all women) (GP/Midwife)	5
4.8 First Appointment (all women) (Booking by midwife)	7
4.8.10 Combined Screening Test	7
4.9 16 weeks (all women)	9
4.10 20-23 weeks (all if choosing scan) (Ultrasonographer)	9
4.11 25 weeks (all women)	9
4.12 28 weeks (all women)	10
4.13 31 weeks (Nulliparous women)	10
4.14 34 weeks (all women)	10
4.15 36 weeks (all women)	11
4.16 38 weeks (all women)	11
4.17 40 weeks (Nulliparous women)	11
4.18 41 weeks (for women who have not given birth)	12

4.19	42 weeks	12
4.20	Missed appointments	12
4.21	Domestic Violence	12
4.22	Psychiatric screening	12
4.23	Anaemia	12
4.24	Toxoplasmosis	13
4.25	Placenta praevia	13
4.26	Fetal growth and wellbeing	13
4.27	Measurement of Symphysis Fundal height (SFH)	14
4.28	Measuring blood pressure	14
4.29	Breech presentation at term	14
4.30	Information to be given to women as part of early pregnancy	14
4.31	Working during pregnancy	14
4.32	Nutrition and nutritional supplements	15
4.33	Food acquired infections	16
4.34	Medicines	16
4.35	Exercise	16
4.36	Sexual activity	17
4.37	Alcohol	17
4.38	Smoking	17
4.39	Cannabis	17
4.40	Travel	17
4.41	By air	17
4.42	By car	17
4.43	vaccinations	17
4.44	Travel insurance	18
4.45	Management of common symptoms in pregnancy	18
4.46	Nausea and vomiting	18
4.47	Heartburn	19
4.48	Constipation	19
4.49	Haemorrhoids	19
4.50	Varicose veins	19
4.51	Vaginal discharge	19
4.52	Thrush	20
4.53	Backache	20
4.54	Symphysis Pubis Dysfunction	20
4.55	Carpel Tunnel Syndrome	20
4.56	Education And Training	20
5.	Monitoring Compliance	20
6.	Exemption for Compliance	20
7.	References	20
Appendix 1	Referral for maternity care	22
Appendix 2	Referral Pathway	24
Appendix 3	Exclusion criteria	25
Appendix 4	Screening for Gestational Diabetes	26
	Risk factors for pre-eclampsia	
Appendix 5	Care which is no longer recommended	27
Appendix 6	Vaccination in pregnancy	28
Appendix 7	Combined Testing	29
Appendix 8	Audit Tool	30

1.1 PREGNANCY CARE FOR HEALTHY WOMEN

4. Process to Follow:

4.1 Introduction

- 4.1.1 Pregnancy is a normal physiological process and, as such, any care and/ or interventions offered should have known benefits and be acceptable to pregnant women.

4.2 Background

- 4.2.1 Pregnant women should be offered evidence-based information and support to enable them to make informed decisions regarding their care. This information should include where they will be seen and who will undertake their care.
- 4.2.2 Addressing women's choices should be an integral part of decision making about care.
- 4.2.3 Women with special communication needs should have access to information in a form they can understand. The Patient and Advice Liaison Service (PALS) can be contacted and individual arrangements made to meet these needs. Interpreting Services should be accessed where necessary (at ESHT by contacting switchboard). Family members should not be used for interpreting.
- 4.2.4 There should be continuity of care throughout the antenatal period.
- 4.2.5 Care should be provided by a small group of carers that the woman feels comfortable with.
- 4.2.6 All women will carry their own case notes (hand held records)

4.3 Principles

- 4.3.1 Each pregnancy contact should be structured and have a focused content
- 4.3.2 Longer appointments will be needed in early pregnancy to enable comprehensive assessment and discussion.
- 4.3.3 Wherever possible appointments should incorporate routine tests and investigations to minimise inconvenience to women.
- 4.3.4 Women should be informed about the purpose of any test before it is performed. The healthcare professional should ensure the woman has understood this information and has sufficient time to make an informed decision **which should be at least 24 hours before they are asked to make any decisions**. The right of a woman to accept or decline a test should be made clear and documented in the notes. Give 'Screening test for you and your baby' leaflet.

- 4.3.5 Standardised equipment, techniques and conditions for blood pressure measurement should be used so that valid comparisons should be made.
- 4.3.6 Healthcare professionals should be alert to risks which affect the health of the mother or baby throughout the entire pregnancy period such as domestic violence, pre-eclampsia and diabetes
- 4.3.7 Women with complex social/physical/medical issues (e.g. child protection, DV, substance misuse, mental health, abnormal baby etc) may require an ASF to be started.

4.4 Staff responsibilities

- 4.4.1 Which ever professional (GP or midwife) the woman accesses to confirm her pregnancy, should complete a 'referral for maternity care' form.
- 4.4.2 If the woman attends Early Pregnancy Assessment Unit EPAC with a viable pregnancy but no booking appointment 'a referral for maternity care' form should be completed.
- 4.4.3 Antenatal care will be provided by the midwife or GP with additional professional involvement according to the referral criteria.
- 4.4.4 The GP will undertake a full history and clinical assessment of overall health (including cardio vascular examination) for all women who have not had this done within the UK. The midwife should refer women who require the above examination to the GP as soon as possible and document in the notes.
- 4.4.5 When a midwife receives a referral for maternity care for a woman more than 12 weeks pregnant, arrangements must be made to book as soon as possible but this must be within two weeks. Complete form 'women not booked by 12 completed weeks of pregnancy' for all women booking after 12 weeks of pregnancy.
- 4.4.6 The Specialist Midwife in Antenatal and Neonatal screening is the designated lead within East Sussex Hospitals Trust co-ordinating the antenatal screening programmes.
- 4.4.7 The Specialist Midwife in Antenatal and Neonatal screening will also work as part of the multidisciplinary team supporting women who are referred to the consultant with high risk or complex screening issues.

4.5 Schedule of Visits

- 4.5.1 First Contact (6 – 8 weeks following confirmation of pregnancy) (GP/MW)**
- 4.5.2 If any woman is referred to the maternity services after 12 weeks of pregnancy they should be booked within 2 weeks.
- 4.5.3 Pregnancy care services and options (including carer and place of birth)

4.6 Information sharing

- 4.6.1 At the first contact women should be offered information about:
- 4.6.2 The purpose of all available screening tests offered to the woman which follows the guidance of the National Screening Committee. In addition the woman will be given the Antenatal and Newborn Screening Programmes 'Screening test for you and your baby' booklet produced by the UK National Screening Committee. This booklet is also available in other forms such as Braille and other languages. The Mother will also be given local information about the screening tests within her hand held maternity notes which she will carry throughout her pregnancy. (The right to accept or decline a test should also be made clear).
- 4.6.3 Lifestyle considerations and dietary information and folic acid supplementation
- 4.6.4 The woman should be informed about the likely number of antenatal contacts and the timing and content of pregnancy care. For a woman who is nulliparous with an uncomplicated history, a schedule of 10 visits should be adequate. For a woman who is parous with an uncomplicated history, a schedule of 7 visits should be adequate.
- 4.6.5 The 'NHS Pregnancy Book' should be given to the woman and used as a reference for the above discussion.

4.7 Assessment

- 4.7.1 A risk assessment should be made by completing the Referral for Maternity Care proforma (see Appendix 1 - available on the intranet and HARMLESS) to identify women who may need additional care. The completed form together with discussion with the woman will enable early identification of risk factors.
- 4.7.2 Any woman who has not had a full medical examination in the UK is referred to the GP for an immediate medical history and clinical assessment of overall health.
- 4.7.3 If risk factors are identified in the proforma a Consultant appointment is recommended
- 4.7.4 If no risk factors are identified, a consultant appointment is not recommended and Midwife and GP care should be offered and [document in the pregnancy record that the mother is low risk](#).
- 4.7.5 The completed proforma (for either Consultant/Midwife/GP) should be sent to the Community midwife of the geographical location (as per local arrangement) (see Appendix 2 for the referral process)
- 4.7.6 Assessment for risk factors is ongoing and should occur at each contact using the exclusion criteria (see Appendix 3).
- 4.7.7 If new factors are identified which require additional care, referral for Obstetric opinion or transfer to Obstetric care should be arranged via the Antenatal Clinic (ANC) or the Day Assessment Unit (DAU) depending upon clinical need.

If the woman is acutely unwell admission to the antenatal ward or Delivery Suite is recommended (Telephone switchboard at Eastbourne District General / Conquest Hospital and ask for the Registrar on call).

4.8 First Appointment with Midwife ('Booking'- ideally before 10 weeks)

- 4.8.1 Obtain a full history and complete the booking questionnaire
- 4.8.2 Perform a risk assessment using the exclusion criteria in Appendix 3 and assess the risk of Diabetes (see Appendix 4) and the risk of pre-eclampsia (see appendix 4) to identify women who may need a Consultant referral for additional care.
- 4.8.3 Plan the pattern of visits
- 4.8.4 Check blood group and rhesus D (RhD) status, BP and urinalysis for proteinuria.
- 4.8.5 Offer screening for anaemia, red-cell alloantibodies, Hepatitis B virus, HIV, rubella susceptibility and syphilis. Women should be given the information that a positive result for syphilis does not necessarily reflect infection but will be followed up.
- 4.8.6 Women should be offered screening for haemoglobinopathies according to the risks identified by the Family Origin Questionnaire (see guideline 7.8 Haemoglobinopathies)
- 4.8.7 Offer screening for asymptomatic bacteriuria (early identification and treatment reduces the risk of preterm birth) using a reagent strip to test for nitrite, blood, protein, leucocytes
- 4.8.8 If any of the following is found, a mid stream urine (MSU) specimen should be sent to the laboratory for analysis:
 - Protein - more than a trace
 - Blood - more than a trace
 - Nitrite - positive
 - Leucocytes - positive
- 4.8.9 Women younger than 25 years should be informed about the high prevalence of Chlamydia infection in their age group. The UK screening committee does not support routine screening for Chlamydia in pregnancy.

4.8.10 Combined Screening

- 4.8.11 Offer an early ultrasound (11-13 weeks and 6 days) to determine gestational age and to detect multiple pregnancies.
- 4.8.12 Offer screening for Down's syndrome. If Down's syndrome screening is requested and the woman is between 11-14 weeks by scan measurements the combined test can be offered. This involves combining the following 3 markers:
 - Measurement of nuchal translucency from ultrasound scan

- PAPP-A (Pregnancy associated plasma protein-A) substance in the blood used as a marker
- Free β -hCG (Free β -human chorionic gonadotrophin) substance in the blood used as a marker

4.8.13 The blood is sent to an external laboratory where it is analysed and all the above markers are combined to produce a risk assessment for Down's syndrome. Screen negative (low risk) results will be sent out to the woman by post. An appointment will be offered in the case of screen positive (high risk) results within 3 working days with a relevant health care professional to discuss the available options, including invasive testing. (See Pathway in Appendix 7).

4.8.14 Women should be given information about the detection and false positive rates and the screening pathway including the option of further diagnostic testing which may be offered (see information leaflet, Screening tests for you & your baby)

4.8.15 Women who are greater than 14 weeks should be offered serum screening by means of the quadruple test which can be taken between 15-22 weeks. This will be organised by the community Midwife, Antenatal clinic, The Specialist Midwife in Antenatal and Neonatal screening or the sonographer.

4.8.16 Offer and discuss ultrasound screening for structural anomalies (20-22 weeks).

4.8.17 Measure height and weight and calculate Body Mass Index (BMI).

4.8.18 Give information about diet and lifestyle and refer to NHS Pregnancy Book and hand held notes.

4.8.19 Ask about domestic violence in an atmosphere conducive to discussing sensitive issues

4.8.20 Screen for alcohol, smoking and substance misuse (in booking questionnaire) and give information and/ offer referral to smoking cessation services, Action for Change (Community Alcohol Team) and Substance Misuse Service

4.8.21 Identify women who have had female genital mutilation (FGM)

4.8.22 Ask about any past or present mental illness or psychiatric treatment, Ask about mood and identify possible depression.

4.8.23 Ask about women's occupation to identify potential risks.

4.8.24 Give specific information about how the baby develops in pregnancy and discuss nutrition and diet including vitamin D supplements.

4.8.25 Discuss exercise including pelvic floor exercises

4.8.26 Discuss breast feeding including workshops

4.8.27 Discuss maternity benefits

4.8.28 Offer the opportunity to attend parent education classes

4.8.29 Give hand held records

4.9 16 weeks (all women)

4.9.1 Review, discuss and record in the woman's hand held notes, the results of all screening tests (including blood tests)

4.9.2 Discuss anti D prophylaxis with rhesus D negative women.

4.9.3 Reassess planned pattern of care and risk factors that would require additional care (see appendix 3)

4.9.4 Investigate a haemoglobin level of less than 11g/dl and consider iron supplementation if indicated (see 4.23)

4.9.5 Provide time for information sharing and discussion

4.9.6 Record any plans, discussions or decisions in the woman's hand held records

4.9.7 Measure Blood Pressure and test urine for proteinuria.

4.9.8 Inform all women of the symptoms of advanced pre-eclampsia as they are associated with poorer pregnancy outcomes.

Symptoms include:

- Headache
- Visual problems (blurring or flashing before the eyes)
- Bad pain below the ribs
- Vomiting
- Sudden swelling of face, hands or feet.

4.10 20 - 23 weeks (all if choosing to have scan)

4.10.1 If it is the woman's choice an ultrasound can be performed to detect structural abnormalities

4.10.2 Women whose placenta is found to extend across the internal cervical os on translational scan at this time should be offered another scan at 32 weeks (with an appointment to review the results)

4.11 25 weeks (Nulliparous women)

4.11.1 Measure and plot symphysis fundal height (SFH) in the hand held records

4.11.2 Measure BP and test urine for protein

4.11.3 Provide time for information sharing and discussion appropriate to gestation and antenatal education

4.12 28 weeks (all women)

- 4.12.1 Offer second screening for anaemia and atypical alloantibodies
- 4.12.2 Investigate a haemoglobin of less than 10.5 g/dl and consider further investigations if indicated (see 4.23)
- 4.12.3 If the woman declines HIV testing at booking then the midwife should offer the test again at 28 weeks.
- 4.12.4 Measure BP and test urine for protein
- 4.12.5 Measure and plot SFH in hand held records
- 4.12.6 Provide time for information sharing and discussion pertinent to gestation and antenatal education
- 4.12.7 Anti D offered to all Resus Negative women.

4.13 31 weeks (Nulliparous women)

- 4.13.1 Measure BP and test urine for protein
- 4.13.2 Measure and plot SFH in hand held records
- 4.13.3 Provide time for information sharing and discussion appropriate to gestation and antenatal education
- 4.13.4 Review, discuss and record the results of any screening tests undertaken at 28 weeks
- 4.13.5 Reassess planned pattern of care and identify women who require additional care (see appendix 3)

4.14 34 weeks (all women)

- 4.14.1 Measure BP and test urine for protein
- 4.14.2 Measure and plot SFH in hand held records
- 4.14.3 Review, discuss and record the results of any screening tests undertaken at 28 weeks in the woman's hand held notes.
- 4.14.4 Provide time for information sharing and discussion appropriate to gestation and antenatal education
- 4.14.5 Discuss labour care and document any choices and decisions (i.e. preference for management of 3rd stage and Vitamin K etc) including place of birth, birth plan, recognising active labour and coping with pain.
- 4.14.6 Reassess planned pattern of care and identify women who require additional care (see appendix 3)

4.14.7 Complete the antenatal checklist (in the hand held notes) irrespective of feeding intention

4.15 36 weeks (all women)

4.15.1 Measure BP and test urine for protein

4.15.2 Measure and plot SFH in hand held records

4.15.3 Check the position of the baby.

Women whose babies are in the breech position should be referred to the obstetric consultant to discuss and offer an external cephalic version.(ECV).

The Trust information leaflet for ECV can be given to the mother at this time to read prior to a antenatal clinic appointment

4.15.4 Review ultrasound report if previous scan showed low lying placenta

4.15.5 Give information on the health benefits of breastfeeding (leaflet 'Feeding your baby') techniques and good management practices such as detailed in UNICEF BFI

4.15.6 Provide time for information sharing and discussion appropriate to gestation and antenatal education

4.15.7 Discuss postnatal care including baby blues and postnatal depression, care of the new baby, Vitamin K prophylaxis and newborn screening tests, and document discussions in the woman's hand held notes.

4.16 38 weeks (all women)

4.16.1 Measure BP and test urine for protein

4.16.2 Measure and plot SFH in the hand held records

4.16.3 Discuss the care options with the woman for prolonged pregnancy

4.16.4 Provide time for information sharing and discussion appropriate to gestation and antenatal classes

4.17 40 weeks (nulliparous women)

4.17.1 Measure BP and test urine for protein

4.17.2 Measure and plot SFH in hand held records

4.17.3 Provide time for information sharing and discussion appropriate to gestation and antenatal classes. Further discussion of management of prolonged pregnancy.

4.18 41 weeks (for women who have not given birth)

4.18.1 A membrane sweep should be offered

4.18.2 Offer Induction of labour (see guideline 2.9 Induction and Augmentation of Labour and leaflet 'Induction of Labour' - available on the intranet or on HARMLESS)

4.18.3 Measure BP and test urine for protein

4.18.4 Measure and plot SFH in hand held records

4.18.5 Provide time for information sharing and discussion appropriate to gestation and antenatal classes

4.19 42 weeks

4.19.1 From 42 weeks women who decline induction of labour should be offered increased antenatal monitoring (at least twice weekly CTG s and ultrasound estimation of maximum amniotic pool depth)

4.20 Missed appointments

4.20.1 If a woman misses her appointments follow guideline (8.9 'Non attendance for antenatal care and 'no access' postnatally')

4.21 Domestic violence

4.21.1 Health care professionals should be alert to the signs and symptoms of domestic violence.

4.21.2 Routine questioning for disclosure should occur in accordance with the guideline (8.5 'Domestic Violence') at the first appointment and at any subsequent unplanned pregnancy contact such as a EPAC, Day unit referral, antenatal admission etc. or at any other time if there is the suspicion of domestic violence.

4.22 Psychiatric screening

4.22.1 Women should be asked at the first contact if they or any member of their family have had any previous psychiatric illnesses. (see referral proforma Appendix 1)

4.22.2 Women with a previous history of significant mental health problems should be referred for a psychiatric assessment during the antenatal period.

4.23 Anaemia

4.23.1 Pregnant women should be offered screening for anaemia. Screening should take place early in pregnancy (at the booking appointment) and at 28 weeks, when other blood screening tests are being performed. This allows enough time for treatment if anaemia is detected.

4.23.2 Haemoglobin levels outside the normal UK range for pregnancy (that is, 11 g/100 ml at first contact and 10.5 g/100 ml at 28 weeks) should be investigated and iron supplementation considered if indicated. When there is a suspicion of iron deficiency, more sensitive and specific tests should be considered. **Serum ferritin is the most sensitive single screening test to detect adequate iron stores.**

4.23.3 Because of the diverse pathogenesis of anaemia (e.g., iron deficiency anaemia, thalassaemia, and sickle cell anaemia) the use of haemoglobin as the sole means of diagnosing anaemia is not a sensitive test although this is often used as the first indicator in clinical practice.

4.23.4 In order to correctly diagnose iron deficiency anaemia, the impact of gestational age on the change in plasma volume must be considered.

4.23.5 Consider haemoglobinopathies.

4.23.6 A Consultant opinion can be sought when the Haemoglobin levels are less than 8.5 g/100 ml.

4.23.7 Women who decline blood products follow guidelines for care

4.23.8 If a woman is planning to have her baby at home or at Crowborough Birthing Centre and her Haemoglobin levels are below 10.0 g/100 ml prior to onset of Labour, then the mother should be referred to the Obstetric Consultant for discussion re- further testing and delivery place of birth discussion.

4.24 Toxoplasmosis

4.24.1 Routine screening should not be offered. Primary prevention should be encouraged by:

- Washing hands before handling food
- Washing all fruit and vegetables (including ready prepared salads) before eating them
- Thoroughly cooking raw meats and ready chilled meals
- Wearing gloves and thoroughly washing hands after handling soil and gardening
- Avoiding cat faeces in cat litter or in the soil

4.25 Placenta Praevia

4.25.1 Most low lying placentas detected at 20 weeks will resolve, therefore only women whose placenta extends over the internal cervical os on transvaginal scan should be offered another transabdominal scan at 32weeks.

4.26 Fetal growth and well being

- 4.26.1 Fetal presentation should be assessed at 36 weeks or later when presentation is likely to influence the plans for birth. Suspected fetal malpresentation should be confirmed by ultrasound scan.
- 4.26.2 Auscultation of the fetal heart may confirm that the fetus is alive but is unlikely to have any predictive value; however, when requested by the mother, auscultation of the FH may provide reassurance.
- 4.26.3 Changes in fetal movements reported by the woman should be acted upon (see guideline 1.10 Diminished fetal movements)

4.27 Measurement of Symphysis Fundal height (SFH)

- 4.27.1 Women should be offered estimation of fetal size at each antenatal appointment to detect small or large for gestational age infants. SFH should be measured in 'cm's' and plotted at each appointment after 24 weeks.
- 4.27.2 After 24 weeks, if the SFH measurement is 3cms above or below the gestational age in weeks a scan appointment should be made directly with the ultrasound department

4.28 Measuring blood pressure

- 4.28.1 The diagnosis of hypertension is dependent upon the accurate measurement of blood pressure.
- 4.28.2 The woman should be sitting or semi-reclining
- 4.28.3 Measure to the nearest 2mmHg.
- 4.28.4 Use Korotkoff V for measurement of the diastolic (disappearance of heart sounds)
- 4.28.5 If 2 readings are necessary, use the average of the readings and not the lowest reading.

4.29 Breech presentation at term

- 4.29.1 All women with an uncomplicated singleton breech pregnancy at 36 weeks should be referred to the obstetric consultant to discuss and offer an external cephalic version.(ECV). The Trust information leaflet for ECV can be given to the mother at this time to read prior to an antenatal clinic appointment.
- 4.30 Information to be given to women as part of early pregnancy care (also available in 'The NHS Pregnancy Book' and hand held notes.

4.31 Working during pregnancy

- 4.31.1 Information should be available about maternity rights and benefits NHS Pregnancy book and Parents guide to money
- 4.31.2 Employees have the right to take time off work for antenatal care.

4.31.3 Paternity leave and flexible working may be available.

4.31.4 It is unlawful for an employer to require or allow a woman to return to work in the two weeks following the birth

4.31.5 Ascertain the woman's occupation during pregnancy to identify those at increased risk through occupational exposure. Employers are required to assess risks which might be posed to the health and safety of pregnant women, those who are breastfeeding or who have given birth in the last 6 months. If a significant risk is identified, steps to avoid it should be taken such as:

- Preventative or protective behaviours
- Altering working conditions or hours
- Arranging alternative work

4.31.6 The majority of women can be reassured that it is safe to work during pregnancy

4.31.7 Information about possible occupational hazards is available from the Health and Safety Executive _ HYPERLINK <http://www.hse.gov.uk> _
__www.hse.gov.uk_

4.32 Nutrition and Nutritional Supplements

4.32.1 Women should be given information about the benefits of eating a variety of foods in pregnancy ('the NHS Pregnancy book' and hand held notes)

4.32.2 Folic acid (400mcg) daily before conception and up to 12 weeks of pregnancy reduces the risk of neural tube defects such as anencephaly and spina bifida.

4.32.3 Iron supplements should not be offered routinely

4.32.4 Vitamin A supplementation should be avoided (also foods such as liver and liver products) as high levels of vitamin A can be teratogenic.

4.32.5 Women should be given information about the importance for their own and their baby's health of maintaining adequate Vitamin D stores during pregnancy and whilst breastfeeding. They may choose to take 10 micrograms of Vitamin D per day.

4.32.6 Women at greatest risk include:

- Women who have limited exposure to sunlight, such as women who are predominantly housebound, or usually remain covered when outdoors
- Women of South Asian, African, Caribbean or Middle Eastern family origin

- Women who eat a diet particularly low in vitamin D, such as women who consume no oily fish, eggs, meat, vitamin D-fortified margarine or breakfast cereal
- Women with a pre-pregnancy body mass index above 30 kg/m².

4.32.7 Women on low incomes may qualify for Healthy start welfare food scheme which includes free vitamin supplements containing Vitamin D and folic acid.

4.33 Food acquired infections

4.33.1 Women should be given information on how they can reduce the risk of listeriosis by:

- Drinking only pasteurised or UHT milk
- Not eating ripened soft cheese such as Camembert, Brie and blue veined cheese (there is no risk with hard cheeses or cottage cheese and processed cheese)
- Not eating pate
- Not eating uncooked or undercooked ready prepared meals

4.33.2 Pregnant women should be given information on how they may reduce the risk of salmonella infection by:

- Avoiding raw or partially cooked eggs or food that may contain them (such as mayonnaise)
- Avoiding raw or partially cooked meat, especially poultry

4.33.3 The food standards Agency has announced that women should limit their consumption of:

- Tuna to no more than 2 medium sized cans/ one fresh tuna steak per week.
- Caffeine to 300 milligrams a day (present in coffee, tea and energy drink)
Daily intake coffee 4 cups a day, tea 6 cups, energy drinks 4 cans

4.34 Medicines

4.34.1 Prescriptions should be used as little as possible during pregnancy and should be limited to circumstances where benefits outweigh risks.

4.34.2 Over the counter medicines should be used as little as possible as few have been established to be safe during pregnancy

4.34.3 Women should be informed that few complementary therapies have been established as being safe during pregnancy therefore and can not therefore be recommended

4.35 Exercise

4.35.1 Beginning or continuing a moderate course of exercise during pregnancy is not associated with any adverse outcomes

4.35.2 There are potential dangers with some activities such as contact sports, vigorous racquet sports and scuba diving

4.36 Sexual activity

4.36.1 Sexual activity during pregnancy is not associated with any adverse outcomes

4.37 Alcohol

4.37.1 A safe low level of alcohol consumption has yet to be confirmed. Fetal alcohol syndrome is linked to binge and heavy alcohol consumption. Advise women to avoid alcohol especially in the first three months of pregnancy.

4.38 Smoking

4.38.1 Women who smoke should be offered smoking cessation services.

4.38.2 women should be informed about the specific risks of smoking during pregnancy (low birth weight baby, preterm labour, higher incidence of miscarriage and stillbirth)

4.38.3 women who are unable to quit should be encouraged to cut down. Women should be informed that there are benefits to quitting at any stage of the pregnancy. Nicotine replacement therapy may be used in pregnancy for women who are unable to quit without pharmacological support

4.39 Cannabis

4.39.1 The effects of cannabis are uncertain but may be harmful (cannabis use is associated with smoking which is known to be harmful). Discourage women from using cannabis and refer for further advice.

4.40 Travel

4.41 By Air

4.41.1 Long haul air travel is associated with an increased risk of venous thrombosis

4.41.2 Wearing compression stockings will reduce the risk

4.41.3 Medical clearance is required by some airlines. In general women with an uncomplicated single pregnancy may fly up to 32 weeks (but will require a letter confirming good health and a normal pregnancy after 28 weeks). Contact individual airlines for specifics.

4.42 By car

4.42.1 In pregnancy women should wear a three-point seat belt above and below the bump, not over it.

4.43 Vaccinations

4.43.1 In general killed or inactivated vaccine toxoids and polysaccharides can be given in pregnancy, as can oral polio vaccine.

4.43.2 Live vaccines are generally contraindicated because of a theoretical risk to the fetus therefore measles, mumps, rubella and yellow fever vaccines should be avoided in pregnancy.

4.43.3 Vaccination for yellow fever may be considered after the sixth month of pregnancy when the risk of exposure (unimmunised adults have a 50% mortality) is deemed greater than the risk to the fetus and pregnant woman.

4.43.4 The risks associated with malaria infection in non immune pregnant women include miscarriage in up to 60% and maternal mortality of up to 10%.

4.43.5 The antimalarial chloroquine and proguanil may be given in the usual doses in areas where Plasmodium falciparum strains of malaria are not resistant. In the case of proguanil 5mg of Folic acid per day should also be given.

4.43.6 Further details of vaccination in pregnancy are in Appendix 5

4.44 Travel insurance

4.44.1 Women who will be travelling while pregnant should obtain adequate medical and travel insurance, ensuring in advance that complications relating to pregnancy are covered, as well as medical care in the case of birth overseas for both the mother and the baby.

4.44.2 Most insurance companies will insure women up to 28 weeks but some will continue until 32 weeks.

4.44.3 Insurance companies will generally cover women if:

- The woman returns to this country by the time stated
- The woman has had no antenatal problems that have required treatment (especially if this has led to a stay in hospital)
- The woman is travelling with the consent of her doctor.

4.44.4 If the woman is travelling within the European Economic Area (EEA) she will need a European Health Insurance card (EHIC). This will cover the cost of care in a hospital but does not cover the cost of transport to the hospital or to bring the baby home.

4.44.5 If a woman is more than 36 weeks when travelling or intends to have her baby in the EEA she will require an E112 form.

4.45 Management of common symptoms in pregnancy – (‘the NHS Pregnancy book’ and hand held notes

4.46 Nausea and vomiting

4.46.1 Most nausea and vomiting will resolve spontaneously within 16 –20 weeks of pregnancy

4.46.2 If a woman requests treatment the following interventions appear to be effective:

4.46.3 Non pharmacological - Ginger

4.46.4 P6 acupressure - (such as 'Sea bands' available from chemists)

4.46.5 Pharmacological - 1st Line antiemetic (cyclizine),
2nd line prochlorperazine

4.47 Heartburn

4.47.1 Heartburn should be distinguished from epigastric pain associated with pre-eclampsia by checking the woman's blood pressure and urine for protein.

4.47.2 Information should be given about lifestyle and diet modification (maintaining an upright position after meals, sleeping in a propped up position, small frequent meals, reduction of high fat foods and gastric irritants such as coffee)

4.47.3 Antacids (such as Gaviscon®) may be offered if symptoms are not resolved with diet and lifestyle modification

4.48 Constipation

4.48.1 Information should be given about diet modification, such as bran or wheat fibre supplements

4.49 Haemorrhoids

4.49.1 There is no evidence of effectiveness of preparations in pregnancy therefore dietary advice should be given.

4.49.2 Creams (such as Anusol -HC® or Anacal®) may be considered if symptoms remain troublesome

4.50 Varicose veins

4.50.1 These are common in pregnancy and do not cause harm.

4.50.2 Compression stockings can improve symptoms but will not prevent varicose veins from emerging.

4.51 Vaginal discharge

4.51.1 Increased discharge in pregnancy is common and physiological

4.51.2 An itchy, sore or offensive smelling discharge or pain on passing urine should be investigated

4.52 Thrush

4.52.1 A 1 week course of topical imidazole (cream or pessaries) can be given

4.52.2 The effectiveness and safety of oral treatments have not yet been tested in pregnancy and so should be avoided.

4.53 Backache

4.53.1 Exercising in water, massage therapy and back care classes can help ease back ache during pregnancy.

4.54 Symphysis pubis dysfunction (SPD)

4.54.1 A collection of signs and symptoms of discomfort and pain in the pelvic area, including pelvic pain radiating to the upper thighs and perineum. Can be mild discomfort to severe and debilitating pain that can impede mobility. Therapies include prescribed analgesia, pelvic support and elbow crutches.

4.55 Carpel tunnel syndrome

4.55.1 Compression of the median nerve within the carpel tunnel in the hand. Symptoms include tingling, burning pain, numbness and swelling in the hand which may impair sensory and motor function. Treatment includes: wrist splits, steroid injections and analgesia.

4.56 Education & Training

4.56.1 See Maternity Service Training Needs Analysis

5. Monitoring compliance

5.1.1 This guideline will be audited every three years or 6-9 months after a practice change using the audit tool (see appendix 8) by the Maternity department and reported to the obstetric and gynaecology audit meetings.

5.1.2 If compliance falls below 75% an Action will be developed and the responsibility for ensuring implementation of the action plan will be the audit supervisor and monitored at the audit meeting.

6. Exceptions for compliance

6.1 None

7 References/further sources of advice

The National Institute for Clinical Excellence, The Scottish Excellence Health Department, Department of Health, Social Services and Public Safety: Northern Ireland (2001) Why Mothers Die 1997-1999 RCOG Press

CEMACH report 2007 'Saving mothers lives 2003-2005

Enkin M, Keirse, J N, Crowther C, Duley L, Hodnett E and Hofmeyr (2000) A Guide to effective care in pregnancy and childbirth (Third edition) Oxford: Oxford University Press.

National Collaborating Centre for Women's and Children's Health (October 2008) Antenatal Care: Routine care for the healthy pregnant woman: Clinical guideline NICE

UK National Screening Committee. Screening Programmes Antenatal and Newborn, 'Screening tests for you and your baby.' 2010

APPENDIX 1

Referral for Maternity Care

Date of referral			
Name	Date of birth	Age	
Address			
Telephone	Home	Mobile	
GP Name			
GP Address			
GP Telephone		GP Fax	
GP email			
Community midwife's name			
Date of last period		Gestational age	
Number of previous pregnancies		Number of previous births	
Previous pregnancy history			
	Recurrent miscarriage (3 or more)		Mid trimester miscarriage
	Severe pre-eclampsia		HELLP syndrome/eclampsia
	Rhesus isoimmunisation		Significant blood group antibodies
	Uterine surgery (Including LSCS)		Cone biopsy
	Antenatal/postnatal haemorrhage on 2 occasions		Puerperal psychosis
	More than 6 pregnancies		Stillbirth/neonatal
	Small for gestational age (less than 5 th centile)		Large for gestational age
	Baby weighing less than 2500g or more than 4500g		Baby with congenital anomaly
Free text			

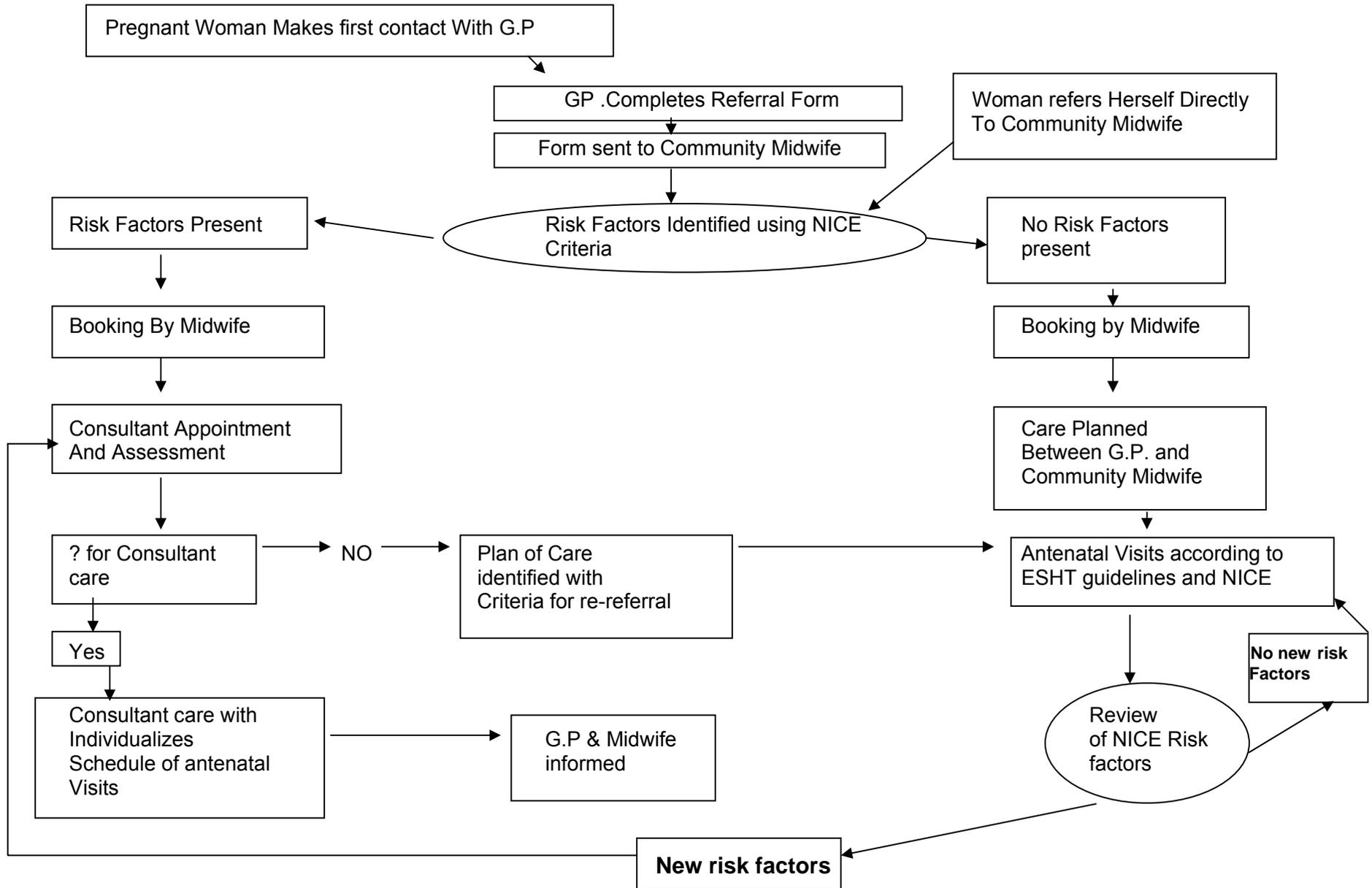
Current pregnancy					
<input type="checkbox"/>	Cardiac disease	<input type="checkbox"/>	Hypertension	<input type="checkbox"/>	Renal disease
<input type="checkbox"/>	Endocrine disorder	<input type="checkbox"/>	Diabetes requiring insulin	<input type="checkbox"/>	Severe asthma
<input type="checkbox"/>	Mental health problems – self or family	<input type="checkbox"/>	Haematological disorders	<input type="checkbox"/>	Auto-immune disorders
<input type="checkbox"/>	Thromboembolic disease	<input type="checkbox"/>	Epilepsy	<input type="checkbox"/>	Malignant disease
<input type="checkbox"/>	Drug use e.g. cocaine	<input type="checkbox"/>	HIV	<input type="checkbox"/>	Smoker
<input type="checkbox"/>	BMI greater than 35	<input type="checkbox"/>	BMI less than 18	<input type="checkbox"/>	Age greater than 40
<input type="checkbox"/>	Age less than 16	<input type="checkbox"/> Requiring enhanced social support			
<input type="checkbox"/>	Allergies	<input type="checkbox"/>	Medications		
Free text					

Women's wishes			
<input type="checkbox"/>	Would like an early scan (10-13 weeks)	<input type="checkbox"/>	Specialist screening tests
<input type="checkbox"/>	Screening test information pack given	<input type="checkbox"/>	Would like antenatal classes

Place of birth			
<input type="checkbox"/>	Eastbourne District General Hospital	<input type="checkbox"/>	Conquest Hospital
<input type="checkbox"/>	Crowborough Birthing Centre	<input type="checkbox"/>	Home Birth
<input type="checkbox"/>	Undecided	<input type="checkbox"/>	other
Free text			

Appendix 2

East Sussex Hospitals Referral Flowchart



APPENDIX 3

Exclusion criteria

Women with **any** of the following should be excluded from the **routine** care for healthy women schedule of visits. A consultant team referral should be made so that an individual pattern of care can be devised

- Hypertension,
- cardiac disease
- renal disease
- endocrine
- psychiatric – requiring medication
- haematological disorders/[Thromboembolic Disorders](#)
- Rhesus isoimmunisation or other significant antibodies
- epilepsy
- severe asthma
- diabetes
- autoimmune diseases
- cancer
- HIV or Hepatitis infection
- Factors which make the woman vulnerable such as those who lack social support
- Age 40 or older or under 16
- BMI greater than or equal to 35 or less than 18
- Previous caesarean section/myomectomy/cone biopsy
- Severe pre-eclampsia or eclampsia or HELLP syndrome
- Three or more miscarriages
- previous preterm birth or mid trimester loss
- previous psychiatric illness or puerperal psychosis
- substance misuse
- previous neonatal death or still birth
- previous baby with congenital abnormality
- previous small for gestational age (SGA) or Large for gestational age (LGA) infant
- family history of genetic disorder
- multiple pregnancy
- APH or PPH on 2 occasions
- Grand multiparity – more than 6 pregnancies
- [Pelvic/Spinal abnormality](#)
- [IVF/any assisted pregnancy must be ref in to cons.](#)
- Any Medications
- Maternal Request

(These women are likely to need additional care which is outside the scope of this guideline.)

APPENDIX 4

Screening for Gestational Diabetes – GTT at 28 weeks

Should be considered for Women with a:

Previous baby of greater than 4.5 kgs

Family history (first degree relative) of IDDM

Family origin South Asian, Black Caribbean, Middle eastern

History of polycystic ovarian syndrome

Booking weight greater than BMI 30kg/m²

Previous gestational diabetes – should have a GTT at 16 – 18 weeks

These women may require additional care and should be referred for a Obstetric opinion.

Screening for Pre-Eclampsia

Apart from “Having a prior history of pre-eclampsia” and even so only previous early PET before 28 weeks is referral warranted to assess the need for aspirin. All the other groups initiate referral on their own accord anyway

APPENDIX 5

The following interventions are **not** recommended components of **routine** pregnancy care:

- Repeated maternal weighing (Repeated weighing during pregnancy should be confined to circumstances where clinical management is likely to be influenced.
- Breast examination
- Pelvic examination
- Iron supplementation or Vitamin A
- Screening for the following infections:
 - Chlamydia
 - Cytomegalovirus
 - Hepatitis C
 - Group B Streptococcus
 - Toxoplasmosis
 - Bacterial vaginosis
- Screening for gestational diabetes – fasting plasma glucose, random blood glucose, glucose challenge test. *
- Screening for preterm birth by assessment of cervical length (by ultrasound scan or vaginal examination) or using fetal fibronectin
- Formal fetal movement counting
- Antenatal electronic cardiotocography (CTG)
- Umbilical artery Doppler USS
- Uterine artery Doppler USS in low risk pregnancies
- Routine ultrasound scanning after 24 weeks
- Routine ultrasound scanning for estimated fetal weight in suspected LGA babies.
- Routine screening for cardiac anomalies using nuchal translucency

* Even though **Not** recommended by NICE however: Local audit demonstrated that it is necessary in our population to maintain optimal detection rate using urine dipstick testing for glycosuria

There is not sufficient evidence to show that they are effective in reducing morbidity or mortality.

APPENDIX 6**Vaccination in pregnancy**

Vaccine	Use in pregnancy	Comments
BCG*	No	
Cholera	No	Safety not determined
Hepatitis A	Yes, administer if indicated	Safety not determined
Hepatitis B	Yes, administer if indicated	Safety not determined
Influenza	Yes, administer if indicated	In some circumstances; consult a physician
Japanese encephalitis**	No	Safety not determined
Measles*	No***	
Meningococcal disease	Yes, administer if indicated	Only if significant risk of infection
Mumps*	No***	
Oral poliomyelitis vaccine	Yes, administer if indicated	
Inactivated poliomyelitis vaccine	Yes, administer if indicated	Normally avoided
Rabies	Yes, administer if indicated	
Rubella*	No***	
Tetanus/diphtheria	Yes, administer if indicated	
Typhoid Ty21a		Safety not determined
Smallpox	No	
Varicella*	No	
Yellow fever*	Yes, administer if indicated	Avoid unless at high risk

* Live vaccine, to be avoided in pregnancy

Continued
over leaf

** Contrary to WHO other reports indicate that the vaccine is both contraindicated in pregnancy and may be administered in pregnancy

*** Pregnancy should be delayed for 3 months after vaccine is give

COMBINED TEST PATHWAY**Booking**

- Woman receives screening information prior to booking
- Woman books with CMW by 10 weeks
- Screening discussed, written information given and documented
- Consent or decline of screening signed in maternal records
- Referral for NT scan made in normal way
- Patient and clinical details completed on request form by CMW and given to the woman to take to scan appointment

NT scan

- Sonographer completes scan details on request form
- NT>3.5mm referred to Specialist Midwife in Screening or Consultant
Leads for Screening - see pathway for suspected fetal anomaly
- Sonographer to remind woman to have bloods taken otherwise no result will be issued

Bloods

- Woman takes form to phlebotomist for bloods
- Woman weighs herself and records weight on request form
 - At EDGH scales are in antenatal clinic
 - At CQ scales are in phlebotomy
- Phlebotomist completes request form
- Bloods taken to pathology by 15.00 to send to Wolfson on same day (Monday-Thursday)
- Bloods taken on Fridays or after 15.00-16.30 on Mondays-Thursdays to be sent to pathology for processing and will be sent to Wolfson next working day

Results

- Wolfson produce combined result
- Screen negative (Low risk)
 - faxed to EDGH Liaison Office Fax no: 01323 414986
 - faxed to Conquest CMW office Fax no: 01424 757597
 - sent out to women with covering letter
 - copy sent to CMW to put into maternity notes
 - recorded in folder/ database
- Screen positive (High risk) – Wolfson will telephone and fax Specialist Midwife for Screening or nominated midwife to action

Appendix 8

PREGNANCY CARE ESHT Guideline number AUDIT DATA COLLECTION SHEET

		Yes	No	NA
1	Was the woman booked prior to 12 weeks of pregnancy?			
2	If no was she seen within 2 weeks			
3	Did the woman need a full medical examination?			
4	Was this done by the G.P?			
5	Was the assessment documented in the maternal notes?			
6	Was the risk assessment Referral for Maternity Care proforma filled in?			
7	If risks were identified was a referral to the Antenatal clinic completed?			
8	Was an individual management plan developed?			
9	Was the individual management plan documented?			
10	Was place of birth discussion documented?			
11	Was a risk assessment carried out for appropriate place of birth?			
12	Were all routine screening test offered?			
13	If the woman was more than 14 weeks, was she offered serum testing?			
14	If any positive results test was she referred immediately to the antenatal screening midwife/consultant?			
15	If the woman was rhesus positive was information on Anti-D prophylaxis is pregnancy given?			
16	Was the Nuchal Scan done at the appropriate time?			
	If no why not?			
		Yes	No	NA
17	Was the Anomaly scan done at the appropriate time?			
	If no why not?			

PLEASE TURN OVER THE PAGE

		Yes	No	NA
18	If low placenta found at anomaly scan was this followed up with a scan later in the pregnancy?			
19	Was blood pressure checked at each contact?			
20	Was the urine checked at each contact?			
21	Was the fetal heart checked at each contact?			
22	Was fundal height checked at each contact?			
23	Was induction of labour (IOL) discussion documented?			
23a	Was the IOL leaflet given?			
24	If >42/40 did the mother have regular CTG's?			
25	If > 42/40 did the mother receive an USS for liquor volume?			
26	If the woman was declining blood products, did she see the consultant?			
27	Was a plan of care documented?			
28	If breech > 36/40 was the woman offered and ECV?			
29	If a sm30oker was the cessation form completed and sent off?			
30	Did the mother accept help to reduce or stop smoking?			
31	Was she still smoking at delivery?			
32	Was diet and supplements discussed at booking?			
33	Was breastfeeding information given at booking?			
34	If any previous mental health issues identified, where required was an individual plan developed and documented?			