Guideline for Clinical Risk Assessment (Antenatal)

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<th>Guideline for Clinical Risk Assessment (Antenatal)</th>
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This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert. Caution is advised when using guidelines after the review date or outside of the Trust.

The principals of antenatal care

Pregnant women should be offered evidence based information and support to enable them to make informed decisions regarding their care. Midwives at first contact should complete the two stage capacity test if they are unsure about the woman’s ability to understand information and make decisions around care.

A thorough assessment of risk will be performed by the midwife at the booking appointment. The risk assessment will inform discussion with the woman regarding her options in relation to her maternity care; including her plan of antenatal care, her named lead professional and appropriate place of birth.
Routine involvement of obstetricians in the care of women with an uncomplicated pregnancy does not appear to improve perinatal outcomes. Women with no identified risk factors (see below) should be considered as suitable for midwifery led care.

Women with risk factors identified at booking appointment or during pregnancy should be referred to hospital for review by the appropriate specialist teams. Non-urgent risk factors will necessitate referral to a consultant antenatal clinic, whereas more acute problems may require referral to Antenatal Baby Care or Labour Suite. It is important however, that community midwives (and GP’s as required) have regular contact with these women also.

Referral to Consultant led care

Women with one or more of the following risk factors should be referred to the consultant led care

General:

- Maternal age 40 and over at EDD
- Maternal age 16 and under at booking
- Grand multiparity (more than six deliveries at >24 weeks)
- Late booker >24 weeks if unknown/uncertain LMP
- In Vitro Fertilisation (IVF) with ICSI or donor egg
- Body Mass Index (BMI) ≥35 kg/m2 at booking
  - Women with BMI ≥45 should be referred at booking to healthy lifestyle ANC.
- Women who decline blood or blood product
- Tocophobia (pathological fear of childbirth)

NB. A woman whose only risk factor is smoking should remain under midwife led care. They will need serial growth scan in third trimester.
which can be organised by the midwife. (refer to ‘Guideline for the screening and management of the small for gestational age fetus’)

Previous Obstetric History:

- Stillbirth or neonatal death
- Preterm delivery <34/40
- Mid trimester loss
- Large (above 95th centile) or small (below 5th centile) for gestational age infant.
- Birth weight at term <2.5kg or >4.5kg
- Congenital abnormality
- Recurrent miscarriage i.e. 3 or more
- Red cell antibodies
- Molar pregnancy
- Severe pre-eclampsia/HELLP/eclampsia
- Gestational diabetes
- Significant antenatal haemorrhage requiring preterm or emergency delivery
- Postpartum haemorrhage (PPH) of >1500ml
- Traumatic/difficult delivery as perceived by the woman
- Shoulder dystocia
- Third/fourth degree tear
- Caesarean section or other uterine scar (e.g. myomectomy, hysterotomy, uterine perforation)
- Retained placenta with PPH or needing blood transfusion
- Previous placenta accreta
- Puerperal psychosis

Gynaecological History:

- Intra-uterine contraceptive device (IUCD) in situ
- Uterine abnormalities/pelvic mass
- Endometrial resection
- Knife cone biopsy or more than one loop biopsy (LLETZ). Many of these women will not need ongoing consultant input.
Previous medical/surgical history:

- Alcohol/drug misuse excluding cannabis (refer to ‘Guideline for the management of drug/alcohol use in pregnancy’)
- Anaesthetic problems (see referral to anaesthetic clinic)
- Cardiac disease including hypertension
- Cardiac murmur associated with symptoms or in women from Indian or African subcontinent where the prevalence of rheumatic heart disease is high (unless already fully investigated in UK and all investigation results are normal)
- Renal disease (including recurrent urinary tract infection – 3 or more)
- Endocrine disorders including diabetes
- Psychiatric disorder (requiring secondary care, admission, suicide attempt or on current medication)
- Sensory or physical disabilities or significant learning problems
- Haematological disorders, including thromboembolic disease, haemoglobinopathies, known thrombophilia, autoimmune disease such as antiphospholipid syndrome,
- Neurological disorders e.g. multiple sclerosis or muscular dystrophy
- Epilepsy
- Cystic Fibrosis
- Severe asthma (previous or current oral steroid use (tablets))
- Other respiratory disorders e.g. bronchiectasis, pneumothorax
- Gastro Intestinal disease e.g. Crohns or Ulcerative Colitis
- Human Immunodeficiency virus (HIV), Hepatitis B virus (HBV) infected or Hepatitis C (HCV) infection
- Autoimmune disorders and other immunological disorders
- Inflammatory arthritis
- Malignant disease
- Any other chronic illness requiring long term medication or follow up
- Female genital mutilation (FGM) where the woman has been referred to specialist midwife-led FGM clinic and there are additional concerns
- Relevant operations (e.g. laparotomies, bowel resection, pelvic floor repair)
- Fractured pelvis

Family History

- Thromboembolic disease – 1st degree relative
- Families where the fetus are at risk of inherited conditions (may need referral via fetal medicine service – phone these departments for advice)

Present obstetric history:

- Vaginal bleeding after first trimester
- PAPP-A <0.4MoM
- Hypertension i.e. BP >140/90 on 2 occasions >4hrs apart with or without proteinuria or symptoms of preeclampsia
- Proteinuria more than or equal to 2+ on one occasion, or 1+ on two or more occasions in absence of urinary tract infection
- 2 or more urinary tract infections
- Persistent haematuria
- Gestational diabetes mellitus (refer to obstetric diabetes service)
- Low haemoglobin (Hb) which is not responding to treatment (refer to ‘Guideline for antenatal monitoring of maternal Hb levels’)
- Itching associated with abnormal liver function tests or raised bile acids (≥14)
- Newly diagnosed sexually transmitted disease (also refer directly to Genital-Urinary Medicine GUM)
- Red cell antibodies
- Multiple pregnancy
- Abnormal fetal growth (where the growth is crossing the centiles or where the linear growth velocity is below the 10th centile)
- Abnormal amniotic fluid volume (polyhydramnios – refer to Guideline for the investigation of ‘large for gestational age’ and management of the large for gestational age fetus and polyhydramnios in women with a singleton pregnancy; oligohydramnios – refer to Guideline for the screening and management of the small for gestational age fetus)
• Abnormal umbilical artery Doppler
• Malpresentation after 36/40
• Fetal abnormality (suspected or confirmed)
• Confirmed exposure to Zika virus or travel to a high risk area
• Anyone developing a new medical problem

Referral to Fetal medicine service

Any woman identified at booking as requiring/may require fetal medicine services should be discussed with the staff working in these units at the earliest possible opportunity, in order to help manage the need for early appointments (extn. 56480 CHN and 61924 QMC) – A general, written referral for either maternity team care or midwife led care should also be submitted in the normal way.

Please consider the following:

• Pre-pregnancy counselling for women with a previous history of fetal abnormality
• Pre-pregnancy counselling for women at high risk of having a child with genetic/syndromic or structural problem
• Pre-pregnancy counselling for women at high risk of moderate to severe fetal haemolytic disease or NAIT
• Pregnancies found to be at increased risk of the common trisomies following screening tests
• Pregnancies with an NT measurement of ≥3.5mm
• Pregnancies exposed to highly teratogenic agents
• Pregnancies where the mother, father or previous child has/had structural congenital heart disease (except PFO and PDA)
• Pregnancies in women who have experienced a previous pregnancy complicated by fetal structural /genetic /chromosomal /syndromic disorders, except where genetic counselling has already been undertaken and the risk is deemed to be low
• Uncomplicated monochorionic twin pregnancies (consider referring to the dedicated twins clinic when this is established on each campus)
• Triplet and higher order gestations
• Requests for embryo reduction
• Pregnancies in which a structural anomaly, hydrops or two or more normal variants have been identified.
• Pregnancies where maternal varicella, CMV, Toxoplasmosis or Parvovirus infections have been proven serologically
• Pregnancies complicated by an abnormal fetal cardiac rhythm
• Pregnancies complicated by maternal red cell antibodies which carry a risk of significant fetal/neonatal haemolysis (see guidance from BTS)
• Pregnancies complicated by fetal growth restriction at <35 weeks gestation with AEDV (consider small baby clinic if at City campus)
• Pregnancies where the EFW is <3rd centile at <28 weeks gestation
• Pregnancies complicated by absent end-diastolic velocities in UA Dopplers (consider small baby clinic if at City campus)
• Pregnancies complicated by severe oligohydramnios (<2cm maximal pocket depth) or severe polyhydramnios (symptomatic or maximal pool depth >12cm)
• Complicated twin gestations eg discordant size at <35 weeks gestation, discordant anomalies, suspicion of twin to twin transfusion syndrome, abnormal fetal Doppler studies

Referral to Maternal medicine service

Any woman with significant medical condition who will require maternal medicine services should be referred to the specialist obstetric clinics. A general, written referral should be submitted in the normal way.

Specialist clinics at CHN are:

• Cardiac
• Renal
• Epilepsy
• Haematology (refer woman with sickle cell disease to CHN whereas woman with haemophilia should be referred to QMC)
• Diabetes
• Endocrine
- HIV

Specialist clinics at QMC are:
- Maternal medicine (will see woman with any medical conditions except renal, complex cardiac disease, diabetes and HIV)
- Endocrine including Diabetes

NB. Woman with Hepatitis B, Hepatitis C and other sexually transmitted diseases should be referred to general ANC.

**Antenatal assessment of pre-eclampsia risks**

Women are at an increased risk of pre-eclampsia if they have 1 high risk factor or more than 1 moderate risk factors for pre-eclampsia.

High risk factors include:
- hypertensive disease in a previous pregnancy
- chronic kidney disease
- autoimmune disease, such as systemic lupus erythematosus or antiphospholipid syndrome
- type 1 or type 2 diabetes
- chronic hypertension

Moderate risk factors include:
- first pregnancy
- age 40 years or older
- pregnancy interval of more than 10 years
- body mass index (BMI) of 35 kg/m2 or more at first visit
- family history of pre-eclampsia
- multiple pregnancy

Pregnant women who are assessed as being at an increased risk of pre-eclampsia at the booking appointment, should be counselled to start low dose aspirin (75mg), unless contraindicated, daily from 12 weeks (ideally should be started before 16 weeks' gestation) until birth.
Arrangements for Oral Glucose Tolerance Test (OGTT) and referral to obstetric diabetes clinic

Refer to NUH Guideline on management of pregnant women with diabetes (including gestational diabetes) for indications, timing, place and how to perform OGTT.

Women who live in the city of Nottingham will have their OGTT in the community. Other women will still need to attend hospital for their OGTT.

Women with impaired OGTT should be referred directly to obstetric diabetes services/ANC by phone.

Referral to Anaesthetic Clinic

The following women (the list act as a guide and not limited to these women only) must be referred to the Maternity anaesthetic clinic by ticking the appropriate box on the referral letter. In addition, also complete an anaesthetic referral form or a dictated letter and submit it to Maternity Appointment Department.

Respiratory

- Severe asthma needing systemic steroids or previous hospital admission
- Other chronic obstructive pulmonary disease which limits activity
- Any restrictive or fibrotic disease

Cardiovascular

- Poorly controlled hypertension
- Ischemic heart disease
- Congenital defects
- Cardiomyopathy
- Marfan’s syndrome

Neuromuscular/skeletal

- Myasthenia gravis
• Spina bifida
• Muscular dystrophy
• Myotonia
• Lower limb neuropathies
• Severe back pain
• Back surgery
• Spinal cord injury
• Arthritic condition affecting neck or jaw
• Cerebrovascular disease

Metabolic

• Morbid obesity i.e. BMI ≥40 kg/m² (These women are seen by the anaesthetist in the Healthy Lifestyle clinic)
• Porphyria
  NB do not refer for low BMI

Haematological

• Clotting or bleeding disorders
• Anticoagulation therapy
• Thrombocytopenia
• Women who decline blood or blood products

Anaesthetic

• Allergy to anaesthetic drugs or local anaesthetics
• Known difficult intubation
• Malignant hyperpyrexia
• Suxamethonium (scoline) apnoea
• Any unexpected reaction to anaesthesia
• Latex allergy
• IV drug misuse with poor venous access

Obstetric

• Placenta praevia (refer to duty anaesthetist on admission)
• Pre-eclampsia (refer to duty anaesthetist on admission)
Psychological

- Needle phobia severe enough to either refuse or need sedation for blood sampling

Management Plan

Following assessment in the hospital, the obstetric team are responsible for clearly documenting an individual management plan based on the risk factor(s) identified, which outlines the actions required, by whom and the frequency/timing of those actions. The management plan must be documented clearly in the hospital records/Medway and the Part One Booklet.

Referral back to Midwife Led Care

Following assessment by an obstetrician care may be transferred back to midwifery led care, depending on the nature of the problem. The obstetrician must document in the Part One Booklet and hospital records/Medway, that care has transferred and must reinforce this to the woman who must be advised when she next needs to be seen by her community midwife. The Medway Maternity system must be updated to reflect the change of care.

Timing of Risk Assessments

Throughout the antenatal period the on-going antenatal schedule underpins the on-going clinical risk assessment process. The woman’s individual circumstances will be assessed at booking, second trimester and third trimester as per NICE guidance. Any deviation from NICE guidance should be documented. Risk assessment for appropriate place of birth must be part of the risk assessments, based on the principles previously stated.

Women may need to be seen more frequently than this. Any such expectation must be outlined in their management plan.
If a new risk is identified or there is a worsening risk in any woman, the community midwife should take the following actions:

- Write her clinical findings and the reason for the referral in the Part One Booklet.
- Telephone the hospital antenatal clinic to make an appointment for the woman to be seen.
- If the woman is unwell or needs urgent review the location of this assessment may vary dependant upon the time of day and the risk identified.
- Ensure the woman is clear of why, where and when she is going to be seen at the Trust.

References


NUH guideline: Guideline for antenatal monitoring of maternal Hb levels (2014)

NUH guideline: Guideline on management of pregnant women with diabetes (including gestational diabetes) (2016)

NUH guideline: Guideline for the care of pregnant women with a body mass index (BMI) of 30 or more (2016)

NUH guideline: Guideline for the management of drug/alcohol use in pregnancy (2011)

NUH guideline: Guideline for the investigation of ‘large for gestational age’ and management of the large for gestational age fetus and polyhydramnios in women with a singleton pregnancy (2016)
NUH guideline: Guideline for the management of low body mass index in antenatal women (2015)

NUH guideline: Guideline for the screening and management of the small for gestational age fetus (2016)