

|   |   |  |                               |
|---|---|--|-------------------------------|
| <b>Document Title:</b>  | <b>ANTENATAL AND INTRAPARTUM MANAGEMENT OF A WOMAN WITH A MULTIPLE PREGNANCY</b>                          |  |                               |
| <b>Document Reference/Register no:</b>  | 04254   | <b>Version Number:</b>                   | 5.0                           |
| <b>Document type:</b> (Policy/ Guideline/ SOP)  | Guideline   | <b>To be followed by:</b> (Target Staff) | Midwives & Obstetricians      |
| <b>Ratification Issue Date:</b><br>(Date document is uploaded onto the intranet)  | 24 <sup>th</sup> October 2018   | <b>Review Date:</b>                      | 23 <sup>rd</sup> October 2021 |
| <b>Developed in response to:</b>  | National Guidance/Recommendations<br>(i.e. NICE; RCOG)<br>Intrapartum NICE Guidelines<br>RCOG guidance    |  |                               |
| <b>Contributes to HSC Act 2008</b> (Regulated Activities) Regulations 2014(Part 3);<br>and CQC Regulations 2009 (Part 4)<br><b>CQC Fundamental Standards of Quality and Safety:</b> |   |  | 11, 12                        |
| <b>Issuing Division/Directorate:</b>  | Women's & Children's  |  |                               |
| <b>Author/Contact:</b> (Asset Administrator)  | Therese McCarrick-Roe, Named Midwife for Safeguarding   |  |                               |
| <b>Hospital Sites:</b><br>(tick appropriate box/es to indicate status of policy review i.e. joint/ independent)   | <input checked="" type="checkbox"/> MEHT<br><input type="checkbox"/> BTUH<br><input type="checkbox"/> SUH |  |                               |
| <b>Consultation:</b>  | (Refer to page 2)   |  |                               |
| <b>Approval Group / Committee(s):</b>   | n/a   | <b>Date:</b>                             | n/a                           |
| <b>Professionally Approved by:</b> (Asset Owner)  | Miss A Rao, Lead Consultant   | <b>Date:</b>                             | 16 <sup>th</sup> October 2018 |
| <b>Ratification Group(s):</b>   | Document Ratification Approval Group  | <b>Date:</b>                             | 23 <sup>rd</sup> October 2018 |
| <b>Executive and Clinical Directors</b><br>(Communication of minutes from Document Ratification Group)  | <b>Date:</b><br>October/November 2018   | <b>Distribution Method:</b>              | Trust Intranet/<br>Internet   |

| <b>Consulted With:</b>       | <b>Post/ Approval Committee/ Group:</b>                       | <b>Date:</b>                  |
|------------------------------|---|-------------------------------|
| Anita Rao/Alison Cuthbertson | Clinical Director for Women's and Children's Directorate      | 16 <sup>th</sup> October 2018 |
| Vidya Thakur                 | Consultant for Obstetrics and Gynaecology                     |                               |
| Alison Cuthbertson           | Head of Midwifery/Nursing for Women's and Children's Services |                               |
| Amanda Dixon                 | Lead Midwife Acute Inpatient Services                         |                               |
| Emma Neate                   | Antenatal and Newborn Screening Coordinator                   |                               |
| Angela Woolfenden            | Lead Midwife for Community Midwifery Services                 |                               |
| Claire Fitzgerald            | Pharmacy  |                               |

|  |   |
|--|---|
| <b>Related Trust Policies</b> (to be read in conjunction with) | (Refer to the main body of the text)<br>04071 Standard Infection Prevention<br>04072 Hand Hygiene<br>04265 Fetal Heart Rate Monitoring in Pregnancy and Labour<br>04264 Guideline for the Management of Emergency lower Segment Caesarean Section<br>04234 Management of postpartum haemorrhage<br>06029 Guideline for the Transfer of Mothers and Babies to different Care Settings<br>Guideline for the completion of the Partogram<br>07065 Guideline for the administration of antenatal steroids'<br>04288 Guideline for the administration of syntocinon for induction and augmentation of labour |
|--|---|

| <b>Document Review History:</b> |                               |  |                               |
|---------------------------------|-------------------------------|--|-------------------------------|
| <b>Version No:</b>              | <b>Authored/Reviewer:</b>     | <b>Summary of amendments/Superseded Documents:</b> | <b>Issue Date:</b>            |
| 1.0                             | Chris Berner                  |  | February 2006                 |
| 2.0                             | Chris Berner and Nicky Leslie |  | October 2009                  |
| 3.0                             | Chris Berner                  |  | July 2012                     |
| 4.0                             | Chris Berner                  |  | 6 October 2015                |
| 4.1                             | Nicky Leslie                  | Clarification to Appendix B                        | June 2016                     |
| 4.2                             | Nicky Leslie                  | Clarification to Appendix B                        | July 2016                     |
| 5.0                             | Therese Mc Carrick-Roe        | Full Review  | 24 <sup>th</sup> October 2018 |

## **INDEX**

- 1. Purpose**
- 2. Equality and Diversity**
- 3. Background**
- 4. Aetiology**
- 5. Incidence**
- 6. Aims**
- 7. Objectives**
- 8. Definitions**
- 9. Antenatal Management**
- 10. Hypertension**
- 11. Considerations for Preterm Birth**
- 12. Timing of Birth**
- 13. Intrapartum Care**
- 14. Management of the Third Stage of Labour**
- 15. Immediate Postpartum Care for both Caesarean Section and Vaginal birth**
- 16. Management of the Delivery of Extremely Premature Multiple Births**
- 17. Management when only one Extremely Premature Baby Delivers**
- 18. Where Fetal Demise occurs in Monochorionic Twins**
- 19. Intrapartum Management of Homebirth Twins (planned or unplanned)**
- 20. Professional Midwifery Advocates**
- 21. Staff and Training**
- 22. Infection Prevention**
- 23. Audit and Monitoring**
- 24. Guideline Management**
- 25. Communication**
- 26. References**

## **27. Appendices**

- A. Appendix A - Determining Zygosity and Chorionicity
- B. Appendix B - Proforma for Management of Multiple Pregnancy and Birth
- C. Appendix C - Multiple Pregnancy Care Pathway

## **1.0 Purpose**

- 1.1 This guideline is aimed at all health professionals working in a maternity setting, to provide a guide for antenatal assessment and the management of multiple pregnancies.
- 1.2 This guideline is intended to assist professionals in providing timely evidence based practice, ensuring optimum care and outcome for the mother and the fetuses.
- 1.3 This guideline reflects emerging clinical and scientific advances. The information is designed to aid practitioners in making decisions about appropriate obstetric and gynaecological care but should not be construed as dictating an exclusive course of treatment. Procedure-variations in practice may be warranted based on the individual needs of the patient.

## **2.0 Equality and Diversity**

- 2.1 Mid Essex Hospital NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

## **3.0 Background**

- 3.1 The last twenty years have seen an increase in multiple births. Overall the number of triplet births has decreased since 1997, following guidelines that a maximum of two embryos should be replaced in IVF treatments. Up to 24% of successful IVF procedures result in multiple pregnancies. Increased fetal and maternal surveillance is required for multiple pregnancies. Decisions should be based on evidence- based information which supports the woman's needs and preferences.

## **4.0 Aetiology**

- 4.1 Multiple pregnancies are associated with an increased fetal risk of miscarriage, preterm delivery, cerebral palsy and intrauterine growth retardation, irrespective of chorionicity. Monochorionic twins have an increased rate of these complications compared to dizygotic twins with specific risk of feto-fetal transfusion syndrome.
- 4.2 Maternal complications of pre-eclampsia, anaemia, antepartum and post partum haemorrhage are increased with women whom have twin gestations. Multiple births are prevalent in women of increased maternal age which is associated with co-morbidities.

## **5.0 Incidence**

- 5.1 Multiple pregnancy occurs in approximately 1: 80 births within the UK, this equates to approximately 3% of all births. Stillbirth rates are higher in multiple births (in 2009 the rate was 12.3 per 1000 for twins and 31.1 per 1000 for triplets. This compared with 5 per 1000 per singleton birth).
- 5.2 The average gestation for twins is 37 weeks, for triplets 34 weeks. Preterm births occur in 50% of all twin births, with increasing incidences for triplets and higher order births.
- 5.3 Maternal mortality associated with multiple births is 4 times higher than that for singleton births.

## **6.0 Aims**

- 6.1 To offer support to all parents, after initial scan confirming multiple pregnancy and chorionicity and discussion of a plan of care.
- 6.2 To discuss the implications of multiple pregnancy including screening. Arrange obstetric and anaesthetic consultant appointments and possible referral to tertiary unit.
- 6.3 To reduce the incidence of maternal mortality and morbidity in twin pregnancies

## **7.0 Objectives**

- 7.1 All women with multiple pregnancies should be offered early scanning to assess viability, determine chorionicity, detect major congenital malformation and offer nuchal translucency, if Downs screening is required.
- 7.2 Women with a multiple pregnancy should be encouraged to undertake a normal birthing experience.
- 7.3 Increased ultrasound surveillance is required to exclude twin to twin transfusion and growth discordance. Pregnancy care should be managed in conjunction with a tertiary unit with recourse to specialist expertise when twin to twin transfusion is suspected.
- 7.4 Appropriate information and support should be offered which encourages the uptake of specialised antenatal information, facilitating realistic preparation for pregnancy, birth and parenting. A bespoke multiple pregnancy class takes place every 2 months, this class is led by the multiple pregnancy midwife and can be booked via the Antenatal Clinic on 01245 513289.
- 7.5 An appropriate level of knowledge for all health care professionals should be promoted which involves the care of women and families with multiple pregnancies. Specialised care may include midwives, specialist obstetricians, ultrasonographers, physiotherapists, infant feeding specialists, and perinatal mental health professionals.
- 7.6 To have in place systems for risk assessment and management of adverse incidents occurring during multiple pregnancy.

## **8.0 Definitions**

- 8.1 Chorionicity in multiple pregnancy refers to the number of outer membranes (chorion) and their relationship to the placenta in a multiple birth, eg monochorionic, dichorionic (Refer to Appendix A).
- 8.2 Zygosity relates to the number of eggs which result in a multiple pregnancy, e.g. monozygotic twins generally share the same DNA and are identical in appearance.
- 8.3 Women should be made aware that dichorionic same sex multiples will not necessarily be dizygous and that the risks associated with multiple pregnancies are determined by chorionicity and not by zygosity

- 8.4 **Monochorionic** twins are formed from the full division of one zygote, morula or blastocyst.
- 8.5 **Monochorionic / Monoamniotic (MC/MA)** twins have no intertwin membrane and a single placenta. These twins will be of the same sex and there can be an intermingling of body parts on the umbilical cords. In extreme cases, when division has been late and is incomplete, then conjoined twins will be seen.
- 8.6 **Monochorionic / Diamniotic** twins have a thin membrane (less than 2 mm thick) which is made up of 2 layers of amnion. The membranes inserts into a 'T' configuration into the single placenta. The twins are of the same sex.
- 8.7 **Dichorionic / Diamniotic** twins have separate sacs and placentae. These twins maybe the same or a different sex and have a thick dividing membrane (more than 2mm thick), which is made up of 2 layers of amnion and 2 layers of chorion. The junction at the uterine wall appears wedge shaped and is often referred to as the 'lambda sign'. (Refer to Appendix A for an illustration on determining zygosity and chorionicity)

## 9.0 **Antenatal Management** (Refer to Appendix C)

- 9.1 NICE suggest the provision of a 'core team' for multiple births which consists of named obstetricians, specialist midwives and ultrasonographers all of whom have experience and knowledge of managing twin pregnancies.
- 9.2 An enhanced team of referrals, which should include:
- Perinatal mental health professional
  - Women's health physiotherapist
  - Infant feeding specialist and a dietician

## 9.3 **Diagnosis**

- 9.3.1 All patients with multiple pregnancy should be offered a scan at 11weeks 2 days to 14 weeks 1 day gestation (when crown rump length measures from 45mm to 84mm, using the measurements of the largest fetus to calculate the EDD) to assess viability, determine chorionicity, major congenital malformation and nuchal translucency, if Downs screening is required.
- 9.3.2 Chorionicity is determined by using the number of placental masses, the lambda or T-sign, membrane thickness and discordant fetal sex, only if sexing is requested by the parents. This would usually be performed at the anatomy scan. Nomenclature is assigned to the fetuses (e.g. upper and lower, or left and right).
- 9.3.3 If chorionicity cannot be confirmed (usually if pregnancy is booked late) then the pregnancy should be managed as monochorionic.

## 9.4 **Screening** (Refer to Appendix C)

- 9.4.1 When a multiple pregnancy is confirmed on dating scan, the patient should be referred to the Antenatal Newborn Screening Co-ordinator, who should arrange the first antenatal appointments. The Antenatal Newborn Screening Co-ordinator should discuss and

offer the NSC booklet 'Screening for Down's syndrome in Multiple Pregnancy'. This discussion should be documented on the multiple birth proforma and secured in the patient's antenatal handheld record.

(Refer to Appendix B)

- 9.4.2 Before screening, the Antenatal Newborn Screening Co-ordinator should inform patients about the increased likelihood of Down's syndrome in twin and triplet pregnancies and that there is a higher false positive rate of screening tests in twin and triplet pregnancies. There is also a greater likelihood of being offered invasive testing and of complications occurring from this testing.
- 9.4.3 Patients must also be informed of the physical and psychological risks related to selective fetal reduction.
- 9.4.4 Screening should be performed when the crown-rump length measures from 45 mm to 84 mm (at approximately 11 weeks 2 days to 14 weeks 1 day). The risks are calculated per pregnancy in monochorionic pregnancies and for each baby in dichorionic and trichorionic pregnancies. Women should be informed that DC / DA twins carry the same risk as for an individual baby, approximately 1 in 800 pregnancies. MC twins have the same risk to both babies having Down's syndrome as a single pregnancy, as they share the same genes.
- 9.4.5 For twin pregnancies the 'combined test' should be used, unless the patient books too late for first trimester screening then second trimester serum screening should be considered.
- 9.4.6 For triplet pregnancies use nuchal translucency and maternal age. Do not use second trimester serum screening.
- 9.4.7 Patients should be referred to a fetal medicine specialist in a tertiary fetal medicine centre when their risk of Down's syndrome exceeds 1:150 (as defined by the NHS Fetal Anomaly Screening programme).
- 9.4.8 A neonatal alert form should be completed and sent to the named paediatric consultant located in the paediatric office, for a plan of care post delivery.
- 9.4.9 When the named paediatric consultant has completed the neonatal alert form with a care plan, a copy will be retained in the neonatal folder. A further copy will be sent to the Antenatal and Newborn Screening Co-ordinator; who will then provide a subsequent copy for the Labour Ward folder. The Antenatal and Newborn Screening Co-ordinator will provide a copy which should be filed in the patient's lilac folder.

## 9.5 **Screening for Structural Abnormalities**

- 9.5.1 Screening for structural abnormalities (such as cardiac abnormalities) should be offered in twin and triplet pregnancies as in routine antenatal care.
- 9.5.2 A paediatric alert form should be completed if the twins are monochorionic, dichorionic triplets or a higher order or for any paediatric concerns.
- 9.5.3 All patients expecting a multiple pregnancy should also be advised that due to the increased incidence of prematurity they may be transferred to a maternity unit with Level 3 neonatal facilities during the antenatal period or their babies may be transferred during the immediate postnatal period.

9.5.4 The potential need for corticosteroids for fetal lung maturation should be discussed with patients if preterm labour is suspected.

**9.6 Indications for Referral to a Tertiary Level Fetal Medicine Centre**  
(Refer to Appendix B)

9.6.1 This includes monochorionic monoamniotic twin pregnancies, monochorionic diamniotic twin pregnancies, monochorionic monoamniotic triplet pregnancies, monochorionic diamniotic triplet pregnancies, dichorionic diamniotic triplet pregnancies. Pregnancies complicated by an increased risk of Down's syndrome, discordant fetal growth, fetal anomaly, discordant fetal death and feto-fetal transfusion syndrome.

9.6.2 Patients with higher order pregnancies of more than three fetuses are advised to deliver at a tertiary unit with level 3 neonatal facilities.

9.6.3 When twin to twin transfusion is suspected, pregnancy care should be managed in conjunction with a tertiary unit with recourse to specialist expertise. Following laser treatment at the tertiary unit; a follow-up ultrasound scan should be arranged by the Antenatal and Newborn Screening Co-ordinator for 1 week; to be conducted by Fetal Medicine Consultant at the Antenatal Clinic, Broomfield Hospital.

**9.7 Ultrasound scanning**

9.7.1 Increased ultrasound surveillance is required to exclude twin to twin transfusion and growth / discordance. Ultrasound scans should be aimed at intervals of less than 28 days.

9.7.2 Intrauterine growth restriction is clinically indicated by a 25% or greater difference in size between twins or triplets. Two or more biometric parameters are used at each ultrasound scan from 20 weeks to estimate fetal weight discordance.

**9.8 Antenatal Clinic and Ultrasound (USS) Appointments**  
(Refer to Appendix C)

9.8.1 Dichorionic twins should be seen following the initial booking scan (between 11 weeks 4 days to 14 weeks 1 days) and then at 20, 24, 28, 32 and 36 weeks, if the pregnancy remains uncomplicated.

9.8.2 Further appointments without scan are offered at 16 to 18 weeks, 34 weeks. Patients should have at least 8 antenatal appointments with a healthcare professional from the core team. At least two of these appointments should be with the specialist obstetrician.

9.8.3 Monochorionic twins which are uncomplicated should be seen following booking scan then at 16, 18, 20, 22 and 24 weeks gestation for growth and to exclude feto-fetal transfusion syndrome (FFTS). These scans should be performed by either the Fetal Medicine Consultant or referred to a tertiary centre to be scanned by a fetal medicine specialist.

9.8.4 In the absence of signs of FFTS scans should be repeated fortnightly until 24 weeks. Further ultrasound scans should be booked at 28, 32 and 34 weeks and can be performed by the sonographers in the routine antenatal ultrasound department.

- 9.8.5 If membrane folding is detected and other possible signs of intertwined membrane infolding and amniotic fluid discordance are found then scan weekly to allow time to intervene if needed.
- 9.8.6 Patients with uncomplicated monochorionic diamniotic twin pregnancies should have at least nine antenatal appointments with a healthcare professional from the core team. At least two of these appointments should be with the specialist obstetrician.
- 9.8.7 Monochorionic triamniotic and dichorionic triamniotic triplet pregnancies should be seen following the booking scan and then at 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34 weeks.
- 9.8.8 Patients should have at least 11 antenatal appointments with a healthcare professional from the core team. At least two of these appointments should be with the specialist obstetrician.
- 9.8.9 Trichorionic triamniotic triplet pregnancies should be seen following the booking scan then at 20, 24, 28, 32 and 34 weeks. An additional appointment without a scan should be offered at 16 to 18 weeks.
- 9.8.10 Monoamniotic twin and triplet pregnancies should be offered individualised care from an obstetric consultant in a tertiary level fetal medicine centre.
- 9.9 **Antenatal Maternal Considerations**  
(Refer to Appendix C)
- 9.9.1 All patients with multiple pregnancies should have a consultant referral at 16 weeks gestation, with referral to a tertiary unit as indicated. During this appointment and subsequent antenatal appointments the patient will have an opportunity to have any questions answered, discuss possible care plan and be given information on multiple birth information weekends.
- 9.9.2 Information on the risks and benefits of different modes of delivery to support women in planning for birth should be discussed and documented on the multiple pregnancy proforma and secured in the patient's handheld records  
(Refer to Appendix B)
- 9.9.3 Information in the antenatal period should take into consideration the woman's antenatal and postnatal mental health and wellbeing, the risks, symptoms and signs of preterm labour and the likely timing and possible modes of delivery.
- 9.9.4 Patients should be advised about antenatal nutrition, the benefits of breastfeeding, managing parenting strategies and recognising when perinatal psychological support is required; this information is covered in depth during the multiple birth weekends.
- 9.9.5 Abdominal palpation is an inaccurate measurement of fetal growth, although in the absence of scanning techniques it can be a clear indicator of a multiple pregnancy when there is discordance between the given gestational age and the height of the fundus.
- 9.9.6 Haemoglobin and serum ferritin levels should be checked at initial booking and repeated at 28 weeks. Iron supplementation should be considered if haemoglobin levels outside the normal UK range for pregnancy (11 g/100 ml at first contact and 10.5 g/100 ml at 28 weeks).

## **10.0 Hypertension**

- 10.1 Hypertensive disorders should be screened at every antenatal visit through blood pressure monitoring should be monitored and urine testing for proteinuria.
- 10.2 Patients with a twin or triplet pregnancy should be advised to take a daily dose of 75mg Aspirin from 12 weeks of pregnancy until the birth if they have the following risk factors:
- Hypertension:
  - First pregnancy
  - Age 40 years or older
  - Pregnancy interval of more than 10 years
  - BMI of 35 kg/m<sup>2</sup> or more at first visit
  - Family history of pre-eclampsia.
- 10.3 All patients with multiple pregnancies should be referred to the Anaesthetic Clinic for initial risk assessment and anaesthesia management.

## **11.0 Considerations for Preterm Birth**

- 11.1 All patients with a multiple pregnancy must be advised of the high incidence of preterm labour occurring and to be aware of the signs and symptoms of labour.
- 11.2 Fetal fibronectin testing alone is not a reliable predictor of spontaneous preterm birth, neither is the routine use of cervical length measurement (with or without fetal fibronectin) to predict the risk of spontaneous preterm birth.
- 11.3 Patients should be informed that the routine use of corticosteroids is not beneficial in uncomplicated twin or triplet pregnancies.

## **12.0 Timing of Birth**

(Refer to Appendix B)

- 12.1 The obstetric registrar/ consultant should discuss the planned and agreed place and timing of birth. This discussion should be documented on the multiple pregnancy proforma and secured in the patient's handheld records  
(Refer to Appendix B)
- 12.2 Patients with an uncomplicated dichorionic twin pregnancy should be offered elective birth from 37 +0 weeks.
- 12.3 Monochorionic twin pregnancies should be offered an elective birth from 36+0 weeks after a course of antenatal corticosteroids.
- 12.4 Triplet pregnancies should be offered an elective birth\* from 35+ 0 weeks after a course of antenatal corticosteroids.
- 12.5 Patients who decline elective birth should have a plan discussed and documented in their hand held health care records; this should include weekly appointments with the specialist obstetrician, an ultrasound scan, bi-weekly cardiotocograph (CTG) assessments for uncomplicated dichorionic twins and fortnightly fetal growth scans. All discussions in relation to point 12.0 should be documented on the multiple pregnancy proforma.

- 12.6 Patients who have a triplet or higher order multiple pregnancy should be offered delivery by caesarean section due to the incidence of multiple malpresentations and the difficulties and inaccuracies associated with intrapartum fetal monitoring

### **13.0 Intrapartum Care**

#### **13.1 Management of labour**

- 13.1.1 **Presentation** - a planned vaginal birth should be considered when twin 1 is in the vertex presentation and twin 2 is either longitudinal, oblique or transverse. A vaginal birth can be considered when both twins are presented by the breech in cases of prematurity.

The mode of delivery of uncomplicated monochorionic or dichorionic twins in the healthy patient may also be dependent upon presentation at the 36 week obstetric appointment or at the onset of labour.

- 13.1.2 **Planned Vaginal Birth** - a planned vaginal birth can be offered when both the twins are in the cephalic presentation or, if twin 1 is in the cephalic presentation and twin 2 is either breech or transverse. When both twins are malpresented an elective or emergency caesarean section will be offered.

- 13.2.3 Initially a verbal history should be obtained regarding the onset of labour and the description of any loss per vaginum. The time and date of any reports of suspected or confirmed spontaneous rupture of the membranes should be documented.

- 13.1.4 The chorionicity of the pregnancy must be determined; this is accurately recorded at 11-13 week scan. If chorionicity has not been determined treat as monochorionic twins.

- 13.1.5 The presentation of the babies must then be identified by abdominal palpation and confirmed with portable ultrasound scan.

- 13.1.6 Note the blood group, rhesus factors and haemoglobin and platelet level.

- 13.1.7 Discuss a birth plan, ensure that all routine procedures are understood and are consensual.

#### **13.2 Health Professionals to be Informed upon Arrival**

- 13.2.1 The Labour Ward Coordinator will allocate a midwife experienced in high risk births. The parents must be informed that more assistance will be required at the time of birth.

- 13.2.2 The Labour Ward Coordinator will ensure that the patient is reviewed by the obstetric registrar/consultant on call and that the anaesthetist is aware. The on call obstetric consultant will be informed as their presence may be required at the birth.

- 13.2.3 The anaesthetist may need to perform an up to date review with regard to risk assessment and anaesthesia requirement.

- 13.2.4 The paediatric and neonatal staff will need to be informed to assess cot availability and assumed admission to the neonatal unit irrespective of gestation.

- 13.2.5 The obstetric theatre team will need to be informed so that existing, planned or emergency surgery can be managed appropriately.

13.2.6 The haematologist may need to be informed if cross-matched blood is required.

### 13.3 Equipment Required for a Vaginal Birth

- Cardiocotograph monitor with two ultrasound transducers and a fetal scalp electrode attachment.
- Portable ultrasound scanner
- Automated blood pressure monitoring equipment.
- Intravenous infusion pump
- Instruments for a ventouse or forceps delivery (Ventouse machine, a 'Kiwi' cup, ventouse sets-yellow, blue and posterior bird cups)
- Blood gas analyser
- Two resuscitaires in the room, one plugged into wall oxygen supply, the other into cylinder oxygen)
- Four labels for the babies identifying patient's name, twin I and II, and the date of birth

13.3.1 **Delivery Instruments** - the delivery trolley should contain:

- One delivery pack
- Two sets of delivery instruments, the second for the use of the Spencer Wells forceps to clamp the cords for identification and to enable Ph and Rhesus negative bloods to be taken
- Two 'Amnihooks'
- Four Heparinised syringes for blood gas analysis
- Two receptacles in which to identify venous and arterial bloods for twins I and II Mark each with mother's name, hospital number and identifiers for venous and arterial blood
- A Foley's or silastic catheter

13.3.2 **Pharmaceuticals** - during the intrapartum and immediate postpartum period the following drugs should be readily available:

- An intravenous solution of 10 units of Syntocinon<sup>®</sup> in 500ml of Hartmann's Solution or in 500 ml Normal Saline
- To prevent or manage a post partum haemorrhage, 40 units Syntocinon<sup>®</sup> in 500ml of Hartmann's solution or 500ml Normal Saline (ensure separate bag of 40 units is available; do not add drugs to existing bag). Avoid having these ready prepared bags in close proximity to each other
- Syntometrine<sup>®</sup> 1ml intramuscularly or Syntocinon<sup>®</sup> 5 units intravenously if Syntometrine is contra-indicated.

### 13.4 Care in labour

13.4.1 The assigned midwife must initially identify the chorionicity of the pregnancy, the site of the placentas and the presentation of the twins (confirmation may be required by portable ultrasound scanning (USS) by the obstetric registrar).

13.4.2 Baseline observation of maternal pulse, blood pressure, and temperature will be recorded as well as observing the general demeanour of the patient with regards to comfort and anxiety.

- 13.4.3 The uterus is observed and palpated to identify contractions and to confirm presentation and engagement.
- 13.4.4 A vaginal examination should be performed to determine the stage of labour, the presence of the membranes, the colour of the liquor, and the presentation and station of twin 1.
- 13.4.5 When labour is confirmed a size 16 gauge cannula should be inserted and blood specimens collected for grouping and saving (4 units should be cross matched if there are identifiable risks of a post partum haemorrhage). If the blood pressure is elevated then blood should be taken for urea and electrolytes and a clotting specimen would be required within six hours of an epidural or spinal anaesthesia being performed.

### **13.5 Fetal Heart Rate Monitoring**

- 13.5.1 Upon confirmation of labour the two fetal heart rates should be continuously monitored with the CTG monitor. Note that on the Philips CTG monitor the printed graphs demonstrate a twin to twin variability of 20 beats per min whereas the screen displays the actual fetal heart rate (see appendix 2 for example of twin CTG recording).
- 13.5.2 For suspected fetal heart rate abnormalities in twin I, reposition the mother and apply a fetal scalp electrode if there is no improvement. Proceed to fetal blood sample if there is still no improvement in the CTG and it is not contraindicated.
- 13.5.3 For suspected fetal heart rate abnormalities in twin II, reposition the mother, proceed to a caesarean section if there is no improvement.
- 13.5.4 Frequently check the CTG trace to ensue that twin synchronicity is not occurring.
- 13.5.5 If monitoring is difficult or frequently synchronises then the portable ultrasound equipment should be used to specifically identify the location of the fetal hearts.
- 13.5.6 If abdominal monitoring is unsuccessful then a fetal scalp electrode (FSE) will need to be applied to twin 1 following artificial rupture of the membranes, whilst abdominal monitoring of twin 2 continues (ensure that the FSE is recorded as twin 1 and the second electrode is recording twin 2).
- 13.5.7 If the monitoring remains unsatisfactory then consider performing a caesarean section.

### **13.6 Analgesia**

- 13.6.1 Epidural anaesthesia is the analgesia of choice for twin labour; it ensures adequate analgesic cover for emergency surgery or manipulation of twin 2. It can prevent premature involuntary pushing which has a higher incidence of occurrence in preterm delivery. It also avoids the detrimental effects on the fetuses of opiate and general anaesthetic drugs.
- 13.6.2 An antacid such as Ranitidine 150mg orally should be offered six hourly.

### 13.7 Management of the First Stage of Labour

13.7.1 This tends to be shorter than in a singleton pregnancy, however labour dystocia can occur due to uterine over-distension. Prolonged labour is to be avoided to ensure that the uterine tone is maintained.

13.7.2 A vaginal examination should be performed very four hours to measure cervical effacement, dilatation and the descent of twin 1. Each vaginal examination should follow an abdominal examination to ensure that optimal presentation is maintained and the descent is progressive abdominally. Once the onset of labour is established with a cervix dilated to 4cm subsequent dilatation should occur at 1cm per hour.

13.7.3 Maternal observations should continue as per routine care in labour, paying particular care to 4 hourly bladder care.

### 13.8 Management of the Second Stage of Labour

13.8.1 On confirmation of second stage, allow one hour for fetal descent of twin 1 if an epidural anaesthesia is used. The Labour ward coordinator may need to organise obstetric, anaesthetic and paediatric presence during this time. A second obstetrician and operative team may be required if a second obstetric theatre is required. The paediatricians may require the support and facilities of the neonatal team if the babies are preterm.

13.8.2 The obstetric consultant should be present for complicated twin births or when support is needed. The birth should take place in the obstetric theatre when,

- The twins are monochorionic
- Twin 2 is malpresented
- There is evidence that twin 2 is > 25% larger than twin 1, irrespective of presentation
- There are concerns regarding the compromising effects of delivery on twin 2, for instance where some intrauterine growth retardation exists or a suspicious CTG is present for twin 2

13.8.3 A bolus dose Epidural 'Top-up' will be required prior to transfer to theatre to enable immediate operative delivery if required.

13.8.4 When using the theatre bed for a vaginal delivery back support may be required to facilitate maternal expulsion.

13.8.5 Twin 1 is delivered as per normal singleton delivery onto the patient's abdomen then to the paediatrician if necessary.

#### 13.8.6 Do not administer Syntometrine<sup>®</sup> at this stage

13.8.7 Identify the first baby's cord by additionally clamping 10cm from the first clamp with a Spencer Wells forceps or a cord clamp. If necessary blood can be taken from here to measure Ph levels.

### 13.9 Management of the Delivery of Twin 2

- 13.9.1 Confirmation of the presentation of twin 2 should be confirmed with the portable ultrasound.
- 13.9.2 An assistant should hold the patient's abdomen to stabilise the longitudinal lie of twin 2.
- 13.9.3 An infusion of 10 units of Syntocinon® in 500ml of Hartman's solution should be administered (according to the protocol for augmentation in labour) immediately before awaiting the re-onset of contractions, to maintain the uterine tone and stabilise the longitudinal lie of twin 2.  
(Refer to the 'Guideline for the administration of Syntocinon for induction and augmentation of labour'. Register number 04288)
- 13.9.4 Continue to monitor twin 2 with the abdominal transducer or a fetal scalp electrode if abdominal conductivity is poor.
- 13.9.5 Perform a vaginal examination, if twin 2 is in the pelvis (-1cm above the level of the ischial spines or lower) then the membranes should be artificially ruptured and the patient encouraged to push.
- 13.9.6 If Twin 2 is not in the pelvis do **not** rupture the membranes until the contractions are stronger and fetal descent has occurred.

### 13.10 Management of a Malpresented Twin 2

- 13.10.1 When the membranes are intact a transverse presentation can undergo an external version to convert to a longitudinal lie then be delivered as a cephalic or breech presentation. The liquor volume and the CTG trace need to be normal and the presenting part needs to be able to enter the pelvis easily.
- 13.10.2 An internal podalic version can be performed if Twin 2 stays transverse and the membranes are still intact. Appropriate anaesthesia facilitates this procedure by allowing adequate uterine relaxation. An USS should assess lie, back, legs and the feet. Under vaginal examination a foot is identified, the membranes are artificially ruptured, and the legs are delivered as a breech extraction. If the back is up, find and extract the anterior foot. If the back is down, aim to rotate the baby (on its long axis), find the anterior foot, and place the operator's hands behind the baby's body, use the posterior foot if the hand is in front of the body. Ideally both feet should be grasped to permit easier extraction of the baby.
- 13.10.3 If the membranes have already ruptured before the commencement of the procedure the uterus may have already contracted around the baby preventing operative movement. An emergency caesarean section is then preferable.
- 13.10.4 Twin 2 is delivered onto the patient's abdomen then passed to the paediatric team if required.

### 13.11 Interval Time between the Twins

- 13.11.2 The interval between the delivery of Twin 1 and Twin 2 is usually no more than 30 minutes. However, if the CTG is normal a delay of 60 minutes is acceptable.

#### **14.0 Management of the Third Stage of Labour**

- 14.1 Following delivery of Twin 2, the second cord should be identified. If necessary arterial and venous bloods should be taken after appropriate clamping to measure Ph values.
- 14.2 Syntometrine<sup>®</sup> 1ml should be administered intramuscularly or 5 units of Syntocinon<sup>®</sup> should be administered intravenously if syntometrine is contraindicated.
- 14.3 An intravenous infusion of syntocinon<sup>®</sup> 40 units in 500ml of Hartmann's solution or normal saline should be commenced.
- 14.4 The placentas should be actively delivered by Brandt Andrews method or controlled cord traction within 30 minutes of the administration of the syntometrine<sup>®</sup> (if the bleeding is normal).
- 14.5 Once delivered the placentas should be examined for completeness and for any abnormalities. The parents should be informed that chorionicity is not accurately determined by placental examination.

#### **15.0 Immediate Postpartum Care for both Caesarean Section and Vaginal Delivery**

- 15.1 Ensure that the uterus remains well contracted by gently palpating the fundus and frequently observing the blood loss per vaginum.
- 15.2 Continue the infusion of syntocinon<sup>®</sup> 40 units in 500 ml of Hartmann's solution or normal saline 0.9% set at a rate of 125ml per hour.
- 15.3 Ensure that the babies receive skin to skin contact as soon as possible. Initiate feeding within the first hour after delivery. Ensure that both babies are labelled correctly.
- 15.4 Record maternal observations of temperature, pulse and blood pressure and the first episode and volume of micturition.
- 15.5 Ensure all contemporaneous notes of the delivery events are recorded in the patient's health care records and within the computerised documentation securing all loose documents. Use the Maternity handover tool when transferring patient to another area.

#### **16.0 Management of the Delivery of Extremely Premature Multiple Births (less than 25 weeks gestation)**

- 16.1 Transfer to a local tertiary centre with level 3 neonatal facilities should be sought if time and safety permit.
- 16.2 An in utero transfer will require 2 neonatal cots and obstetric facilities for the mother.
- 16.3 The neonatal unit must be informed of the imminent delivery of the preterm babies. Discussions regarding the appearance and management of the babies should be offered by the paediatric consultant or registrar to the parents.
- 16.4 Corticosteroids such as betamethasone 12mg should be administered intramuscularly, 12 hours apart for gestations of between 24 weeks and 35 weeks (Refer to 'Guideline for the administration of antenatal steroids'. Register number 07065)

16.5 Ensure full neonatal resuscitation equipment, paediatric and neonatal staff are available prior to delivery.

### **17.0 Management when only one Extremely Premature Baby Delivers**

17.1 Each situation requires individual assessment and discussion which involves the parents, the obstetricians, the midwives, the paediatric team and the microbiologist.

17.2 After the delivery of the first baby the midwife or obstetrician should proceed by:

- Leaving the membranes intact
- Shortening the umbilical cord; using a vicryl suture to tie as close to the cervix as possible
- Observe the patient for signs of infection, four hourly temperature, respirations, blood pressure and pulse recordings
- Twice weekly white cell count and C-reactive protein measurements
- Ensure the uterus is **not** palpated abdominally
- Review the cardiotocograph monitoring if indicated
- Administer co-amoxiclav 1.2 g intravenously (IV) and metronidazole 500mg IV for 48 hours
- Then co-amoxiclav 650 mg with metronidazole 200 mg to be taken orally for 5 days
- Then administer Erythromycin 500 mg four times a day until delivery is indicated
- Administer Betamethasone 12mg 12 hours apart intramuscularly to improve lung maturity  
(Refer to 'Guideline for the administration of antenatal steroids'. Register number 07065)
- Ultrasound scan (USS) to monitor growth every two weeks. Liquor volume and umbilical Dopplar flows may be monitored according to need.

### **18.0 Where a baby's demise occurs in Monochorionic Twins**

18.1 Follow up will consist of referral to a tertiary centre, with USS and possible MRI surveillance. Counselling should be offered regarding the long-term morbidity of the surviving twin.

### **19.0 Intrapartum Management of Homebirth Twins (planned or unplanned)**

19.1 Women should be supported in their choice of place of delivery. Following a full discussion and documentation of risks factors with her midwife she should then be referred to an obstetric consultant. A plan of care must be negotiated and documented in the woman's hand held notes. Ensure that the supervisor of midwives team is made aware of the plan. A provision may be made to accommodate the woman's requirements within the consultant unit.

19.2 A homebirth plan will be formulated between the midwife and the woman; this should include the uptake of screening and scanning, particularly to determine chorionicity and the planned management of any abnormal or emergency situations which may arise. The discussion must incorporate the delay incurred by transfer times and distance.

19.3 If the homebirth is planned, advise the woman to increase her iron intake throughout the pregnancy. Consider the grouping and saving of blood from 36 weeks, at seven day intervals.

- 19.4 Equipment and provision should be made for the resuscitation of two babies.
- 19.5 Equipment and provision should be made in case of a postpartum haemorrhage.
- 19.6 When labour has commenced ensure the Labour Ward Co-ordinator, the on call Consultant Obstetrician, the Supervisor of Midwives, the Neonatal Unit and ambulance control are aware of a twin homebirth.
- 19.7 Two experienced midwives will need to be present during labour with a third at delivery or paramedic ambulance crew if an emergency.
- 19.8 Consider cannulation at the onset of labour.
- 19.9 During labour maternal observations and documentation should occur as above.
- 19.10 The fetal hearts can be auscultated simultaneously by using two separate Pinnard's stethoscopes. This should be performed every 15 minutes in the first stage of labour and after every contraction during the second stage.
- 19.11 Labour should be managed as above in point 13.0
- 19.12 If active management of the third stage is declined encourage early breastfeeding to maintain uterine tone.

## **20.0 Professional Midwifery Advocates**

- 20.1 Professional Midwifery Advocates provide a mechanism of support and guidance to women and midwives. Professional Midwifery Advocates are experienced practising midwives who have undertaken further education in order to supervise midwifery services and to advise and support midwives and women in their care choices.

## **21.0 Staffing and Training**

- 21.1 All midwifery and obstetric staff must attend yearly mandatory training which includes skills and drills training.
- 21.2 All midwifery and obstetric staff are to ensure that their knowledge and skills are up-to-date in order to complete their portfolio for appraisal.

## **22.0 Infection Prevention**

- 22.1 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively 'decontaminate their hands' before and after each procedure.
- 22.2 All staff should ensure that they follow Trust guidelines on infection control, using aseptic non-touch technique (ANTT) when carrying out procedures i.e. obtaining blood samples, vaginal examinations, inserting a cannula and conducting deliveries.

## **23.0 Audit and Monitoring**

- 23.1 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy (register number 08076), the

Corporate Clinical Audit and Quality Improvement Project Plan and the Maternity annual audit work plan; to encompass national and local audit and clinical governance identifying key harm themes. The Women's and Children's Clinical Audit Group will identify a lead for the audit.

23.2 As a minimum the following specific requirements will be monitored:

- Requirement for providing information on the risks and benefits of different modes of delivery to support women in planning for birth
- Requirement to discuss the planned and agreed place and timing of birth
- Guidelines for managing the second stage of labour
- Documentation of all of the above
- Arrangements for providing all patients with a multiple pregnancy ultrasound examination to assess viability, chorionicity, gestational age, major congenital malformation and nuchal translucency
- Routine schedule of antenatal visits and scans for patients with multiple pregnancy
- How the maternity service will manage suspected twin to twin transfusion, including referral to tertiary centre if appropriate
- Process for audit, multidisciplinary review of audit results and subsequent monitoring of action plans

23.3 A review of a suitable sample of health records of patients to include the minimum requirements as highlighted in point 23.2 will be audited. A minimum compliance 75% is required for each requirement. Where concerns are identified more frequent audit will be undertaken.

12.4 The findings of the audit will be reported to and approved by the Multi-disciplinary Risk Management Group (MRMG) and an action plan with named leads and timescales will be developed to address any identified deficiencies. Performance against the action plan will be monitored by this group at subsequent meetings.

12.5 The audit report will be reported to the monthly Directorate Governance Meeting (DGM) and significant concerns relating to compliance will be entered on the local Risk Assurance Framework.

12.6 Key findings and learning points from the audit will be submitted to the Patient Safety Group within the integrated learning report.

12.7 Key findings and learning points will be disseminated to relevant staff.

## **24.0 Guideline Management**

24.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust's intranet site.

24.2 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.

24.3 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now

downloaded from the intranet and filed appropriately in the guideline folders. 'Spot checks' are performed on all clinical guidelines quarterly.

- 24.4 Quarterly Clinical Practices group meetings are held to discuss 'guidelines'. During this meeting the practice development midwife can highlight any areas for further training; possibly involving 'workshops' or to be included in future 'skills and drills' mandatory training sessions.

## 25.0 Communication

- 25.1 A quarterly 'maternity newsletter' is issued and available to all staff including an update on the latest 'guidelines' information such as a list of newly approved guidelines for staff to acknowledge and familiarize themselves with and practice accordingly.
- 25.2 Approved guidelines are published monthly in the Trust's Focus Magazine that is sent via email to all staff.
- 25.3 Approved guidelines will be disseminated to appropriate staff quarterly via email.
- 25.4 Regular memos are posted on the guideline notice boards in each clinical area to notify staff of the latest revised guidelines and how to access guidelines via the intranet or clinical guideline folders.

## 26.0 References

Cronk M.nd. My Guidelines for care of a woman expecting Twins. Mary Cronk Midwifery Services.

Available online at:<http://www.homebirth.org.uk/marycronk/marytwins.htm>.

[Accessed on 12<sup>th</sup> March 2012]

Davies M. 2009. Multiple Pregnancy. In: Fraser D., Cooper, M., ed.2009. Myles Textbook for Midwives. Churchill Livingstone Elsevier. China. Ch. 24.

Dodd JM., Crowther CA., (2007) Specialised Antenatal Clinics for women with a Multiple Pregnancy for Improving Maternal and Infant Outcomes. Cochrane Database of Systemic Reviews 2007, Issue 2. Art. No.: CD005300.

DOI:10.1002/14651858.CD005300.pub2.

Dodd JM, Crowther CA. 2010. Elective delivery of women with a twin pregnancy from 37 weeks' gestation. Cochrane Database of Systematic Reviews 2003, Issue 1. Art. No.1 Available online at:<http://www2.cochrane.org/reviews/en/ab003582.html>]

Fraser E., 2009. Multiple Failings: Parents' of Twins and Triplets Experience of Pre & Post Natal NHS Care. Twins and Multiple Births Association.

Available at :<http://www.tamba.org.uk/document.doc?id=73>.

McKay 2010. The effects of twins and multiple births on families and their living standards. Twins and Multiple Births Association.

Available at: <http://www.tamba.org.uk/document.doc?id=73>.

Department of Health. 2010. Equity and Excellence: Liberating the NHS. London.

Available at:

[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/@ps/documents/digitalasset/dh\\_117794.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_117794.pdf)

Lewis, G. (Ed.), 2007. The Confidential Enquiry into Maternal and Child Health (CEMACH). Saving Mothers' Lives: Reviewing Maternal Deaths to Make Motherhood Safer—2003–2005. The Seventh Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. CEMACH, London.

McKay (2010). The effects of twins and multiple births on families and their living standards. Twins and Multiple Births Association.

Available at: <http://www.tamba.org.uk/document.doc?id=73>.

National Institute for Clinical Excellence. 2007. Intrapartum care: Care of healthy women and their babies during childbirth. National Collaboration Centre for Women and Children's Health.

Available at: <http://www.nice.org.uk/guidance/index.jsp?action=download&o=36280>

National Institute for Clinical Excellence. (2011) Multiple Pregnancy: The management of twin and triplet pregnancies in the antenatal period. National Collaboration Centre for Women and Children's Health.

Available at: <http://www.nice.org.uk/multiple-pregnancy-cg129>

National Screening Committee (2007) Screening for Downs syndrome in Multiple Pregnancy.

Available at: <http://www.fetalanomaly.screening.nhs.uk>

Nursing and Midwifery Council (2010) What is Supervision of Midwives? Nursing and Midwifery Website Available at: <http://www.nmc-uk.org>.

Ooki S., (2008). Breast-feeding rates and related maternal and infants' obstetric factors in Japanese twins. Environmental Health and Preventative Medicine. Vol 13 (4) pp187-197.

Redshaw, M., Heikkila K. (2010) Delivered with care: a national survey of women's experience of maternity care . National Perinatal Epidemiology Unit.

Available at: <https://www.npeu.ox.ac.uk/maternitysurveys>

Redshaw M., Henderson J., Kurinczuk J. (2011) Maternity Care for Women Having A Multiple Birth National Perinatal Epidemiology Unit.

Available at: <https://www.npeu.ox.ac.uk/files/downloads/reports/Maternity-care-for-women-having-a-multiple-birth.pdf>

Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Anaesthetists, Royal College of Paediatricians and Child Health (2007) Minimum Standards for the Organisation and Delivery of Care in Labour

Available online at: [http://www.rcoa.ac.uk/docs/Safer\\_Childbirth.pdf](http://www.rcoa.ac.uk/docs/Safer_Childbirth.pdf).

Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer: 2006–2008. (2011). BJOG: An International Journal of Obstetrics & Gynaecology, Vol 118: 1–203.

Antenatal and Intrapartum Management of a woman with a multiple pregnancy / 04254 / 5.0  
Walkinshaw, S. (2009) Breech and Twin Delivery in. Warren, R., and Arulkumaran, S.,ed.  
2009. Best Practice in Labour and Delivery. Cambridge University Press. Cambridge.

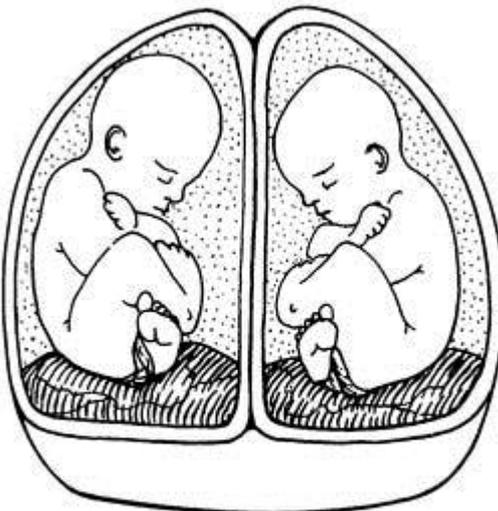
**Determining Zygosity and Chorionicity**



**Monochorionic/Monoamniotic**



**Monochorionic/Diamniotic**



**Dichorionic/Diamniotic  
(Fused Placenta)**



**Dichorionic/Diamniotic  
(Separate Placentas)**

All monochorionic placentation produces monozygotic fetuses.  
However 25% of monozygotic twins have dichorionic placentas

### Proforma for Management of Multiple Pregnancy and Birth

|              |             |
|--------------|-------------|
| First name:  | Consultant: |
| Surname:     |             |
| DOB:         | Chronicity  |
| Hospital no: |             |
| NHS no:      |             |

**Antenatal Newborn Screening Co-ordinator:**

|  |                                    |
|--|------------------------------------|
| Contacted/seen by Antenatal Newborn Screening Co-ordinator           | (please circle)<br><b>Yes / No</b> |
| Down's, Edwards and Patau's Screening                                | <b>Yes / No</b>                    |
| Tertiary Unit Referral   | <b>Yes / No</b>                    |
| Seen by Fetal Medicine Consultant                                    | <b>Yes / No</b>                    |
| Parentcraft information given  | <b>Yes / No</b>                    |
| Asprin Assessment<br>(Refer to page 34 of the Antenatal Care Record) | <b>Yes/ No</b>                     |
| Date   |                                    |
| Signature  |                                    |
| Print name   |                                    |

**Antenatal Care Plan:**

|  |                 |
|--|-----------------|
| Antenatal Clinic Appointment 16-18 weeks gestation | <b>Yes / No</b> |
| Neonatal Unit Alert form completed and sent        | <b>Yes / No</b> |
| Glucose Tolerance Test (GTT)                       | <b>Yes / No</b> |
| Serial scans booked                                | <b>Yes / No</b> |
| Anaesthetic appointment booked                     | <b>Yes / No</b> |
| Date   |                 |
| Signature  |                 |
| Print name   |                 |

**Antenatal discussion** of the benefits and risks of different modes of delivery as follows:

(please circle)

- Benefits of vaginal birth discussed **Yes / No / N/A**  
If Yes, refer to page .....for details
- Risks of vaginal birth discussed **Yes / No / N/A**  
If Yes, refer to page .....for details
- Benefits of caesarean section discussed **Yes / No / N/A**  
If Yes, refer to page..... for details
- Risks of caesarean section discussed **Yes / No**  
If Yes, refer to page..... for details

Discuss the role of epidural in labour for vaginal birth for twin pregnancy **Yes / No**

If Yes, refer to page..... for details

Discussion re planned and agreed place and timing of birth **Yes / No**

If Yes, refer to page..... for details

Dichorionic Aim for Delivery at 38 to 39 weeks gestation **Yes / No / N/A**

Monochorionic/ Diamniotic Twins - Aim for delivery at 36 to 37 weeks gestation **Yes / No / N/A**

Monochorionic/Monoamniotic - Aim for delivery at 32-33 weeks gestation **Yes / No / N/A**  
(by Caesarean section)

Triplet pregnancy - Aim for delivery at 35-36 weeks gestation **Yes / No / N/A**  
(by Caesarean section)

Date

Signature

Print name

**Management plan for second stage of labour:**

Deliver in labour room (please circle)  
**Yes / No**

Deliver in theatre **Yes / No**

Date:

Signature:

Print name

## Multiple Pregnancy Care Pathway

| Gestation  | Plan of Care   |
|--|--|
| 11+2 – 14+1 weeks<br>Antenatal Clinic (ANC)<br>Broomfield (BMFD) | <p>Dating scan confirms multiple pregnancy; ultrasonographer to document viability, chorionicity and amnionicity on scan report. Ultrasonographer to inform Antenatal Newborn Screening Co-ordinator regarding the findings of ultrasound scan</p> <p>Antenatal Newborn Screening Co-ordinator to discuss the findings of ultrasound scan with the patient and provide an information pack for multiple births, including National Screening Committee's "Screening for Downs syndrome in Multiple pregnancy" leaflet. In addition, to provide in depth counselling for Down's syndrome screening if accepted arrange nuchal translucency scan within appropriate timescale. Documentation of discussion should be documented on the multiple birth proforma (Refer to Appendix B)</p> <p>Antenatal Newborn Screening Co-ordinator should:</p> <ul style="list-style-type: none"> <li>• Arrange an appointment for the next available obstetric consultant clinic</li> <li>• Ensure that the woman is taking folic acid if not arrange a prescription</li> <li>• If chorionicity and amnionicity has not been detailed or uncertain arrange for follow up scan to determine ASAP</li> <li>• Arrange anomaly ultrasound scan</li> </ul> <p>The patient should commence Aspirin 75mg if any of the risk factors mentioned in point 10.2 of the main text</p> |
| 16-18 weeks<br>ANC BMFD  | <p>Appointment with an obstetric consultant to discuss individualised management plan.</p> <p>Consultant routine antenatal check</p> <p>Discuss the results of routine booking bloods</p>  |
| <b>Uncomplicated Dichorionic Twins</b>                           |  |
| 18 – 20+6 weeks.<br>ANC BMFD                                     | <p>Anomaly ultrasound scan</p> <p>Speciality obstetrician/Consultant review following scan</p> <p>Routine Antenatal Check</p> <p>Check Down's syndrome screening blood results if screening has been accepted</p> <p>Arrange follow-up scans and antenatal appointments</p> <p>Consider prescribing iron tablets/Advice re diet in pregnancy</p> <p>Speciality obstetric registrar/ consultant to update multiple birth proforma for management of multiple pregnancy and birth and place in health record. (Refer to Appendix B)</p>  |
| 24 weeks<br>ANC BMFD   | <p>Ultrasound scan for liquor volume and growth</p> <p>Routine antenatal check</p> <p>Discuss parent education classes</p> <p>Speciality obstetric registrar/ consultant to update multiple birth proforma for management of multiple pregnancy and birth and place in health record. (Refer to Appendix B)</p>  |
| 28 weeks<br>Antenatal Clinic BMFD                                | <p>Ultrasound scan for liquor volume and growth</p> <p>Consultant /speciality obstetrician review and routine antenatal check</p> <p>FBC and rhesus antibodies if rhesus negative</p> <p>Prophylactic Anti D if consented</p> <p>Update multiple birth proforma for management of multiple pregnancy and</p>   |

|   |   |
|---|---|
|   | <p>birth<br/>(Refer to Appendix B)<br/>Discussion on delivery planning and management of second stage of labour<br/>28 week information CD/leaflets</p>   |
| 32 weeks<br>Antenatal Clinic BMFD                   | <p>Ultrasound scan for liquor volume and growth<br/>Consultant/ speciality obstetrician/ review and routine antenatal check<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p>   |
| 36 weeks<br>Antenatal Clinic BMFD                   | <p>Ultrasound scan for liquor volume and growth<br/>Consultant/ speciality obstetrician/ routine antenatal check<br/>Ensure plans in place for delivery<br/>Aim to deliver at 38-39 weeks<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p>   |
| <b>Uncomplicated Monochorionic Diamniotic Twins</b> |   |
| 16 weeks<br>Broomfield Hospital                     | <p>Ultrasound with Fetal Medicine consultant/ Tertiary centre for FFTs screening<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p>  |
| 18 weeks  | <p>Anomaly scan with Fetal Medicine Consultant / Tertiary centre<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p>  |
| 20 weeks  | <p>Scan with Fetal Medicine Consultant / Tertiary centre<br/>Arrange follow-up scan and antenatal appointments<br/>Consider prescribing iron tablets/Advice re diet in pregnancy</p>  |
| 22 weeks  | <p>Scan with Fetal Medicine Consultant / Tertiary centre<br/>Ultrasound scan for liquor volume and growth</p>   |
| 24 weeks BMFD                                       | <p>Scan with Fetal Medicine Consultant / Tertiary centre<br/>Ultrasound scan for liquor volume and growth<br/>Consultant /speciality obstetrician review<br/>Book departmental ultrasound scans for all uncomplicated MCDA twins a 28/ 32 / 34 weeks gestation if not being seen at the Tertiary Unit or by the Fetal Medicine Consultant<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p> |
| 28 weeks  | <p>Ultrasound scan for liquor volume and growth<br/>Consultant /speciality obstetrician review<br/>Routine antenatal check<br/>Bloods with consent for FBC and rhesus antibodies if rhesus negative<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>(Refer to Appendix B)</p>   |
| 32 weeks  | <p>Ultrasound scan appointment for growth and liquor volume<br/>Consultant /speciality obstetrician review</p>  |
| 34 weeks  | <p>Ultrasound scan appointment for growth and liquor volume<br/>Consultant /speciality obstetrician review<br/>Routine antenatal check<br/>Update multiple birth proforma for management of multiple pregnancy and birth<br/>Aim to deliver at 37 weeks</p>   |

|   |   |
|---|---|
|   | (Refer to Appendix B)   |
| <b>Uncomplicated Monochorionic Monoamniotic Twins</b> |   |
| <b>16 weeks</b><br>Broomfield Hospital                | Ultrasound with Fetal Medicine consultant/ Tertiary centre for TTTs screening<br>Update multiple birth proforma for management of multiple pregnancy and birth<br>(Refer to Appendix B)   |
| <b>18 weeks</b>                                       | Anomaly scan with Fetal Medicine Consultant / Tertiary centre<br>Update multiple birth proforma for management of multiple pregnancy and birth<br>(Refer to Appendix B)   |
| <b>20 weeks</b>                                       | Scan with Fetal Medicine Consultant / Tertiary centre<br>Arrange follow-up scan and antenatal appointments<br>Consider prescribing iron tablets/Advice re diet in pregnancy   |
| <b>22 weeks</b>                                       | Scan with Fetal Medicine Consultant / Tertiary centre<br>Ultrasound scan for liquor volume and growth   |
| <b>24 weeks BMFD</b>                                  | Scan with Fetal Medicine Consultant / Tertiary centre<br>Ultrasound scan for liquor volume and growth<br>Consultant /speciality obstetrician review<br>Book departmental ultrasound scans for all uncomplicated MCMA twins at 26/ 28/ 30 weeks gestation if not being seen at the Tertiary Unit or by the Fetal Medicine Consultant<br>Update multiple birth proforma for management of multiple pregnancy and birth<br>(Refer to Appendix B) |
| <b>26 weeks</b>                                       | Scan with Fetal Medicine Consultant / Tertiary centre<br>Ultrasound scan for liquor volume and growth   |
| <b>28 weeks</b>                                       | Ultrasound scan for liquor volume and growth<br>Consultant /speciality obstetrician review<br>Routine antenatal check<br>Bloods with consent for FBC and rhesus antibodies if rhesus negative<br>Update multiple birth proforma for management of multiple pregnancy and birth<br>(Refer to Appendix B)   |
| <b>30 weeks</b>                                       | Scan with Fetal Medicine Consultant / Tertiary centre<br>Ultrasound scan for liquor volume and growth<br>Routine antenatal check<br>Update multiple birth proforma for management of multiple pregnancy and birth<br>Aim to deliver at 32-33 weeks<br>(Refer to Appendix B)   |