WOMEN'S HEALTH AND PAEDIATRICS

MATERNITY UNIT

Multiple Pregnancy Guideline

Amendments			
Version	**Date**	**Comments**	**Approved by**
1	Nov 2014	Whole document review	WHGG Chairs action
2	June 2016	Whole document review	WHGG Chairs action
3	June 2020	Whole document review	
4	June 2023	Guideline extended for 3 years as fully compliant with NICE	Perinatal Guidelines Group

Compiled by: **Dr Jo Hale – Consultant Obstetrician**
Amy Lovegrove – Complex Care Midwifery Team Leader

In consultation with: Perinatal Governance Group

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Target audience: All health professionals within the maternity services

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Contents

Abbreviations

DA	**Diamnionitic**
DC	**Dichorionic**
EFW	**Estimated fetal weight**
MA	**Monoamnionitic**
MC	**Monochorionic**
MCA-PSV	**Middle cerebral artery peak systolic velocity**
TAPS	**Twin anaemia polycythaemia sequence**
TRAP	**Twin reverse arterial perfusion syndrome**
TTTS	**Twin to twin transfusion syndrome**
USS	**Ultrasound**

Multiple Pregnancy Guideline

1.0 Introduction

Multiple pregnancy is reported in 16 per 1000 births in the United Kingdom and account for 3% of live births.

Multiple pregnancy is associated with higher risks for the mother and babies. Women with multiple pregnancies have an increased risk of miscarriage, anaemia, hypertensive disorders, haemorrhage, gestational diabetes, operative delivery and postnatal illness. In general, maternal mortality associated with multiple births is 2.5 times that for singleton births.

- Monochorionic (MC) twin pregnancies carry a higher risk of mortality and morbidity than dichorionic (DC) twins due to complications such as Twin to Twin Transfusion Syndrome (TTTS) which accounts for 20% of stillbirths in multiple pregnancies. Around one-third of twin pregnancies in the UK have monochorionic placentas. Monochorionic placentation can occur in twins and higher-order multiples in spontaneous as well as assisted conceptions. Monochorionic, monoamniotic (MA) (single amniotic sac) pregnancies (1% of twins) carry a very high risk of cord entanglement.

2.0 Determining Chorionicity and Amnionicity

- This should be done at the first trimester scan using
    - Number of placental masses
    - Presence of amniotic membrane and membrane thickness
    - Lambda or T sign
- Assign nomenclature to the babies (e.g. upper, lower, left or right) in a twin or triplet pregnancy and documented clearly on scan report to ensure that consistency is used throughout the pregnancy
- If there is doubt in the diagnosis of chorionicity, the woman should be referred to a local fetal medicine consultant without delay, as chorionicity is best determined before 14 weeks
- If there is any doubt after local fetal medicine consultant review, then they should be treated as an MC pregnancy.
- Separate placentae and discordant genitalia are also signs of dichorionicity, particularly in the mid-trimester.

- A consultant opinion from a local fetal medicine consultant should be sought for multiple pregnancies that are monochorionic monoamniotic twin pregnancies, triplet or higher order pregnancies and pregnancies complicated by discordant fetal growth, fetal anomaly, discordant fetal death or where there is suspected twin-to-twin transfusion.

2.1 Table 1 - Chorionicity and amnionicity

Types Of Twin Pregnancy	
Dichorionic diamniotic twins	Each baby has a separate placenta and amniotic sac
Monochorionic diamniotic twins	Both babies share a placenta but have separate amniotic sacs
Monochorionic monoamniotic twins	Both babies share a placenta and amniotic sac
Types of Triplet Pregnancy	
Trichorionic triamniotic triplets	Each baby has a separate placenta and amniotic sac
Dichorionic triamniotic triplets	One baby has a separate placenta and 2 of the babies share a placenta. All 3 babies have separate amniotic sacs
Dichorionic diamniotic triplets	One baby has a separate placenta and amniotic sac and 2 of the babies share a placenta and amniotic sac
Monochorionic triamniotic triplets	All 3 babies share 1 placenta but each has its own amniotic sac
Monochorionic diamniotic triplets	All 3 babies share 1 placenta. One baby has a separate amniotic sac and 2 babies share 1 sac
Monochorionic monoamniotic triplets	All 3 babies share a placenta and amniotic sac

3.0 Antenatal Care in Multiple Pregnancies

3.1 Screening

First trimester combined testing (Nuchal Translucency scan with serum screening) can be offered to women with a twin pregnancy who opt for screening. For triplets and higher order multiple pregnancies, the screening is offered with NT only

See 'Ultrasound Guideline' for further guidance on dating, diagnosis and antenatal screening for multiple pregnancies.

3.2 Aspirin

NICE Guidance on Hypertension in Pregnancy and reducing the risk of hypertensive disease in pregnancy suggests that women with high risk of pre-eclampsia take 150mg of Aspirin daily from 12 weeks until the birth of the baby or (until advised to stop by an obstetrician). This includes women with 1 'high risk' factor or 2 or more 'moderate risk' factors.

NICE 2019 assessment for aspirin (Risk assess at booking in BadgerNet)	
High Risk – 1 factor	**Moderate Risk – more than 1 factor**
▪ Hypertensive disease in a previous pregnancy ▪ Type1 or Type 2 Diabetes ▪ Chronic kidney disease ▪ Autoimmune disease such as SLE or antiphospholipid syndrome ▪ Chronic hypertension	▪ First pregnancy ▪ Age 40 years or older ▪ Pregnancy interval of more than 10 years ▪ BMI ≥ 35 kg/m² at booking ▪ Multi-fetal pregnancy ▪ Family history of pre-eclampsia

3.3 Birth Refelections

Referral to the 'Birth Refelections' service, via Badgernet, should be offered to women where appropriate, for example in cases of selective reduction, fetal loss and any other situations where the midwife feels the woman would benefit from additional support and/or counselling.

3.4 Schedule of Antenatal care for multiple pregnancies

See following tables for antenatal care pathways for the different types of multiple pregnancy:

UNCOMPLICATED DCDA TWIN PREGNANCY			
GESTATION (WEEKS)	**MDT CONTACT**	**ACTION**	**INFORMATION**
6 - 11+6 weeks 1st contact with MMW	Midwife booking appointment ANC MDT (12weeks onwards) reviewed by Consultant, Sonographer, Multiples Midwife	1st trimester USS dating scan to determine: ▪ Gestation ▪ Chorionicity & amnionicity ▪ Major congenital malformation ▪ Nuchal translucency screening in line with NICE guidelines Scan to take place between 11+2 weeks and 14+1 weeks) Booking bloods Booking risk assessment and management plan	Parent information pack given on multiple pregnancy and antenatal nutrition discussed Relevant risk factors Preterm delivery - NICU, transitional care cots Timing and mode of delivery Fetal assessment scans Information on specialist classes for couples expecting multiple births Specialist multiple support groups – TWINS TRUST, multiple birth foundation and local multiple groups
16 weeks	**MMW Midwife led clinic**	BP and urinalysis Health Visitor referral	Discuss and record blood test results
20 weeks	ANC MDT review	Anomaly scan (18-21 weeks) BP and urinalysis Bloods for FBC & Fetal RhD Testing if required (from 16weeks onwards)	Discuss anomaly scan report Discuss parent education classes and book if wanted Review scan for IUGR
24 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis MAT B1 (any time after 20 week scan)	Review scan for IUGR & discuss scan report Assess for experienced enhanced team referral e.g. physio, mental health etc Discussion on pre-term delivery and signs of early labour
26 weeks	**MMW** **Midwife led clinic/home visit**	BP and urinalysis Mental health assessment Offer GTT if any other risk factors	Discuss importance of fetal movements and contact numbers Discuss timing and mode of delivery
28 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis 28/40 bloods for Hb and antibodies Offer routine anti-D prophylaxis if required	Discuss scan report
30 weeks	**MMW** **Midwife led clinic/home visit**	BP and urinalysis	Discuss birth plan – ▪ Signs of labour, coping strategies ▪ Epidural analgesia in labour ▪ Use of oxytocin in labour and for the 3rd stage ▪ Infant feeding and support available

			▪ Vitamin K prophylaxis ▪ Newborn screening tests ▪ Anxieties and postnatal depression ▪ Postnatal care provision from MMW ▪ Breastfeeding information and support available Complete breastfeeding checklist
32 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis Document management plan	Discuss scan report Signpost to online tour of delivery suite Could visit NICU and transitional care if applicable Discuss timing and mode of delivery
34 weeks	**MMW** **Midwife led clinic/home visit**	BP and urinalysis Repeat FBC if previously low at 28/40 and on iron treatment	Discuss fetal movements, signs of labour and contact numbers Re-discuss birth plan if required
36 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis	Discuss scan report and any concerns Discuss induction process or LSCS procedure – give date for induction or elective LSCS Plan for delivery at 37 weeks if not delivered
37 weeks - if ongoing care required	**MMW** **Midwife led clinic/home visit**	BP and urinalysis If planned delivery declined, weekly appointments with specialist obstetrician for an individualised care plan until delivery	Plan for delivery at 37 weeks if not delivered

UNCOMPLICATED MCDA/MCMA TWIN PREGNANCIES			
GESTATION (WEEKS)	**MDT CONTACT**	**ACTION**	**INFORMATION**
6 -11+6 weeks 1st contact with MMW	Midwife booking appointment ANC MDT (12 weeks onwards) reviewed by Consultant, Sonographer, Multiples Midwife	1st trimester USS dating scan to determine: ▪ Gestation ▪ Chorionicity & amnionicity ▪ Major congenital malformation ▪ Nuchal translucency screening in line with NICE guidelines Scan to take place between between 11+2 weeks and 14+1 weeks) Booking bloods Booking risk assessment and management plan	Parent information pack given on multiple pregnancy and antenatal nutrition discussed Relevant risk factors TTTS Preterm delivery – NICU transitional care cots Timing and mode of delivery Fetal assessment scans Information on specialist classes for couples expecting multiple births Specialist multiple support groups – TWINS TRUST, multiple birth foundation and local multiple groups
16 weeks	ANC MDT review - If normal USS can be seen by MMW only	BP and urinalysis Fetal assessment scan Health Visitor referral	Discuss and record blood test results (booking bloods) Review scan for TTTS and IUGR
18 weeks	ANC MDT review - if normal USS can be seen by MMW only	BP and urinalysis Fetal assessment scan	Review scan for TTTS and IUGR
20 weeks	ANC MDT review	Anomaly scan (18-21 weeks) BP and urinalysis Bloods for FBC & Fetal RhD Testing if required (from 16weeks onwards)	Discuss anomaly scan report Discuss parent education classes and book if wanted Reviews scan for TTTS and IUGR
22 weeks	ANC MDT review - if normal USS can be seen by MMW only	Fetal assessment scan BP and urinalysis USS	Reviews scan for TTTS and IUGR Discuss and record blood results (FBC and Fetal RhD testing)
24 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis MAT B1 (any time after 20 week scan)	Assess for experienced enhanced team referral e.g. physio, mental health etc Discussion on pre-term delivery and signs of early labour Review scan for TTTS and IUGR
26 weeks	ANC MDT review - if normal USS can be seen by MMW only	Fetal assessment scan BP and urinalysis Offer GTT if any other risk factors	Discuss importance of fetal movements and contact numbers Reviews scan for TTTS and IUGR Discuss timing and mode of delivery

28 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis 28/40 bloods for Hb and antibodies Offer routine anti-D prophylaxis if required	Discuss scan report
30 weeks	ANC MDT Review - if normal USS can be seen by MMW only	Fetal assessment scan BP and urinalysis	Discuss scan report Discuss birth plan – ▪ Signs of labour, coping strategies ▪ Epidural analgesia in labour ▪ Use of Magnesium sulphate and corticosteroids ▪ Use of oxytocin in labour and for the 3rd stage ▪ Infant feeding and support available ▪ Vitamin K prophylaxis ▪ Newborn screening tests ▪ Anxieties and postnatal depression ▪ Postnatal care provision from MMW ▪ Breastfeeding information and support available Complete breastfeeding checklist Signpost to online tour of delivery suite Could visit NICU and transitional care if applicable Discuss and record blood results
32 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis Repeat FBC if previously low at 28/40 and on iron treatment Document management plan	Discuss scan report **MCMA twins – make plan for delivery (discussed with fetal medicine consultant) following course of steroids***
34 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis	Discuss scan report Discuss and record blood results (FBC if was repeated) Discuss fetal movements, signs of labour and contact numbers Offer course of corticosteroids Plan for delivery at 36 weeks following course of steroids*
36 weeks – if undelivered	ANC MDT Review	Fetal assessment scan BP and urinalysis If planned delivery declined, weekly appointments with specialist obstetrician for an individualised care plan until delivery	Discuss scan report and any concerns Discuss induction process or LSCS procedure and ensure steroids have been given or planned

***For women with an uncomplicated MCMA pregnancy, delivery is recommended between 32+0 & 33+6 after a course of antenatal corticosteroids has been considered**

UNCOMPLICATED TCTA TRIPLET PREGNANCIES			
GESTATION (WEEKS)	**MDT CONTACT**	**ACTION**	**INFORMATION**
6 -11+6 weeks 1st contact with MMW	Midwife booking appointment ANC MDT (12 weeks onwards) reviewed by Consultant, Sonographer, Multiples Midwife	1st trimester USS dating scan to determine: ▪ Gestation ▪ Chorionicity & amnionicity ▪ Major congenital malformation ▪ Nuchal translucency screening in line with NICE guidelines Scan to take place between between 11+2 weeks and 14+1 weeks) Booking bloods Booking risk assessment and management plan	Parent information pack given on multiple pregnancy and antenatal nutrition discussed Relevant risk factors Preterm delivery – NICU transitional care cots Timing and mode of delivery Fetal assessment scans Information on specialist classes for couples expecting multiple births Specialist multiple support groups – TWINS TRUST, multiple birth foundation and local multiple groups
16 weeks	ANC MDT review	BP and urinalysis Fetal assessment scan Health Visitor referral	Discuss and record blood test results (booking bloods) Review scan for IUGR
18 weeks	ANC MDT review	BP and urinalysis Fetal assessment scan	Review scan for IUGR
20 weeks	ANC MDT review	Anomaly scan (18-21 weeks) BP and urinalysis Bloods for FBC & Fetal RhD Testing if required (from 16weeks onwards)	Discuss anomaly scan report Discuss parent education classes and book if wanted Reviews scan for IUGR
22 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis USS	Reviews scan for IUGR Discuss and record blood results (FBC and Fetal RhD testing)
24 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis MAT B1 (any time after 20 week scan)	Assess for experienced enhanced team referral e.g. physio, mental health etc Discussion on pre-term delivery and signs of early labour Review scan for IUGR Refer to NICU family liaison nurse
26 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis Offer GTT if any other risk factors Mental health assessment	Discuss importance of fetal movements and contact numbers Reviews scan for IUGR Discuss timing and mode of delivery
28 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis 28/40 bloods for Hb and antibodies (AntiD if required)	Discuss scan report

30 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis	Discuss scan report Discuss birth plan – ▪ Signs of labour ▪ Mode of delivery ▪ Who to contact if signs of labour and when ▪ Caesarean section ▪ Analgesia for birth ▪ Use of oxytocin for the 3rd stage ▪ Infant feeding and support available ▪ Vitamin K prophylaxis ▪ Newborn screening tests ▪ Anxieties and postnatal depression ▪ Postnatal care provision from MMW ▪ Breastfeeding information and support available Complete breastfeeding checklist Signpost to online tour of delivery suite Could visit NICU and transitional care if applicable Discuss and record blood results (Hb and antibodies)
32 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis Repeat FBC if previously low at 28/40 and on iron treatment Document management plan	Discuss scan report Plan for delivery (individualised consultant plan) following course of steroids Discuss LSCS process
34 weeks – if undelivered	ANC MDT Review	Fetal assessment scan BP and urinalysis If planned delivery declined, weekly appointments with specialist obstetrician for an individualised care plan until delivery	Discuss scan report Discuss and record blood results (FBC if was repeated) Discuss fetal movements, signs of labour and contact numbers

NB - Scan frequency may be increased before 24 weeks to 3 weekly (as per fetal medicine consultant) taking into consideration other risk factors in the pregnancy

UNCOMPLICATED DCTA/MCTA TRIPLET PREGNANCIES			
GESTATION (WEEKS)	**MDT CONTACT**	**ACTION**	**INFORMATION**
6 -11+6 weeks 1st contact with MMW	Midwife booking appointment ANC MDT (12 weeks onwards) reviewed by Consultant, Sonographer, Multiples Midwife	1st trimester USS dating scan to determine: ▪ Gestation ▪ Chorionicity & amnionicity ▪ Major congenital malformation ▪ Nuchal translucency screening in line with NICE guidelines Scan to take place between between 11+2 weeks and 14+1 weeks) Booking bloods Booking risk assessment and management plan	Parent information pack given on multiple pregnancy and antenatal nutrition discussed Relevant risk factors TTTS Preterm delivery – NICU transitional care cots Timing and mode of delivery Fetal assessment scans Information on specialist classes for couples expecting multiple births Specialist multiple support groups – TWINS TRUST, multiple birth foundation and local multiple groups
16 weeks	ANC MDT review	BP and urinalysis Fetal assessment scan Health Visitor referral	Discuss and record blood test results (booking bloods) Review scan for TTTS and IUGR
18 weeks	ANC MDT review	BP and urinalysis Fetal assessment scan	Review scan for TTTS and IUGR
20 weeks	ANC MDT review	Anomaly scan (18-21 weeks) BP and urinalysis Bloods for FBC & Fetal RhD Testing if required (from 16weeks onwards)	Discuss anomaly scan report Discuss parent education classes and book if wanted Reviews scan for TTTS and IUGR
22 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis USS	Reviews scan for TTTS and IUGR Discuss and record blood results (FBC and Fetal RhD testing)
24 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis MAT B1 (any time after 20 week scan)	Assess for experienced enhanced team referral e.g. physio, mental health etc Discussion on pre-term delivery and signs of early labour Review scan for TTTS and IUGR Refer to NICU family liaison nurse
26 weeks	ANC MDT review	Fetal assessment scan BP and urinalysis Offer GTT if any other risk factors Mental health assessment	Discuss importance of fetal movements and contact numbers Reviews scan for TTTS and IUGR Discuss timing and mode of delivery

28 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis 28/40 bloods for Hb and antibodies Offer routine anti-D prophylaxis if required	Discuss scan report
30 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis	Discuss scan report Discuss birth plan – ▪ Signs of labour ▪ Mode of delivery ▪ Who to contact if signs of labour and when ▪ Caesarean section ▪ Analgesia for birth ▪ Use of oxytocin for the 3rd stage ▪ Infant feeding and support available ▪ Vitamin K prophylaxis ▪ Newborn screening tests ▪ Anxieties and postnatal depression ▪ Postnatal care provision from MMW ▪ Breastfeeding information and support available Complete breastfeeding checklist Signpost to online tour of delivery suite Could visit NICU and transitional care if applicable Discuss and record blood results (Hb and antibodies) Plan for delivery **MCTA triplets – make plan for delivery (discussed with fetal medicine consultant) following course of steroids***
32 weeks	ANC MDT Review	Fetal assessment scan BP and urinalysis Repeat FBC if previously low at 28/40 and on iron treatment Document management plan	Discuss scan report Discuss LSCS process
34 weeks – if undelivered	ANC MDT Review	Fetal assessment scan BP and urinalysis If planned delivery declined, weekly appointments with specialist obstetrician for an individualised care plan until delivery	Discuss scan report Discuss and record blood results (FBC if was repeated) Discuss fetal movements, signs of labour and contact numbers

4.0 Fetal complications of multiple pregnancies

4.1 Growth restriction in twin multiple pregnancies

Calculate and document EFW discordance for twin pregnancies using the formula

EFW largest baby – EFW smaller baby ÷ EFW largest baby x 100 (%)

Growth discordance can be either of both babies or of one baby (selective growth restriction)

To calculate growth discrepancy in triplets – see NICE guideline Twin and Triplet pregnancy NG137 (page 16)

4.2 Monochronionic Pregnancies

4.2.1 Twin to Twin Transfusion Syndrome (TTTS)

TTTS complicates around 15% of monochorionic pregnancies. Clinicians managing mothers with MC pregnancies should be aware of the signs and symptoms of the potential onset of TTTS, which may occur most commonly between 14-24 weeks gestation, but may also occur later. All mothers with MC pregnancies should be warned of the symptoms of TTTS and advised to attend the hospital promptly for review if symptoms develop. The symptoms are:

- Sudden increase in abdominal size which is painful and tense (most common)
- Shortness of breath
- Abdominal/back pain
- Swelling of hands and legs in early pregnancy
- Reduced fetal movements

The mother should be seen in the MAC (Maternity Assessment Centre)/Triage on the same day if she is reporting any of the above symptoms and should not leave without an USS to look for TTTS. This should include looking for polyhydramnios and large bladder in recipient twin and oligohydramnios and small or absent bladder in donor twins.

4.2.2 Twin reverse arterial perfusion syndrome – TRAP

This occurs in early embryogenesis and is a chronic perfusion of an acardiac twin or a twin with a rudimentary heart by a pump twin through patent intertwin vasculature.

This would prompt a referral to a tertiary centre.

4.2.3 Twin anaemia polycythaemia sequence - TAPS

Can occur spontaneously in around 3-5% MC pregnancies or it can occur following laser treatment

Offer weekly USS monitoring for TAPS from 16 weeks pregnancy using MCA-PSV to women whose pregnancies are complicated by:

- TTTS treated with fetoscopic laser therapy
- Selective fetal growth restriction with an EFW discordance of 25% or more and EFW of any of the babies below the 10th centile for gestational age

For women with a MC pregnancy showing any of the following: -

- Cardiovascular compromise such as fetal hydrops or cardiomegaly or/
- Unexplained isolated polyhydramnios
- Abnormal umbilical artery Doppler

Perform USS MCA-PSV measurements to help detect advanced stage TAPS and seek management advice from a tertiary fetal medicine specialist.

5.0 Maternal Complications of Multiple Pregnancy

Women with a multiple pregnancy are more at risk of these pregnancy complications and these should be discussed with the women in early pregnancy. For management of the specific conditions please refer to individual guidelines and consider physiotherapy referral for musculoskeletal complaints. If women have any of these additional complications then please ensure this is highlighted to the Consultant in order to develop an individualised management plan

- Gestational hypertension
- Pre-eclampsia
- Gestational diabetes
- Anaemia
- Post partum haemorrhage
- Pre-term birth
- Pelvic gridle pain/musculoskeletal complaints

6.0 Indications for referral to tertiary centre

Pregnancies with a shared amnion

- Monochorionic monoamniotic twins
- Dichorionic diamniotic triplets
- Monochroionic diamniotic triplets
- Monochorionic monoamniotic triplets

Pregnancies complicated by any of the following

- Fetal weight discordance (of 25% or more) and an EFW of any of the babies <10th centile for gestational age
- Fetal anomaly structural or chromosomal
- Discordant fetal death
- TTTS
- TRAP
- Suspected TAPS
- Conjoined twins or triplets

7.0 Planning for birth

There is no robust evidence supporting either vaginal birth (VB) or caesarean section (CS) for the delivery of twins with no other complications.

If the first twin is in a vertex presentation, with no other problems, vaginal birth is recommended.

If the first twin is not in a vertex presentation, then delivery by CS is generally advisable. The team providing care should provide information on the risks and benefits of different modes of delivery and support women in planning for their birth.

The risk of caesarean delivery for one or both twins is around 30-40%.

Antenatal discussion should be undertaken regarding mode of delivery, use of epidural analgesia and need for continuous monitoring in labour and documented in the woman's notes. These discussions should include information regarding postnatal support and breast feeding

- Review and plan for delivery should be discussed and documented, at 32-34/40 antenatal appointment in MC twins (discussed with fetal medicine consultant) and by 34-36/40 in DC twins.

- Timing of birth should be individualised in each pregnancy.
- Inform women that 60% of twin pregnancies result in spontaneous birth before 37 weeks.
- Inform women with triplets that 75% of triplet pregnancies deliver before 35 weeks
- Induction of labour would be advised as for singleton pregnancy (*refer to Induction of Labour guideline*) provided that the first twin is cephalic and no other risk factors are present
- For women who decline elective birth offer weekly appointments with obstetrician, with an individual plan of care to be discussed with obstetric consultant

7.1 Timing of Birth

7.1.1 Table 2 – Timing of Birth in Multiple Pregnancies

Uncomplicated twin pregnancies	
Dichorionic diamniotic twins	Offer planned birth at 37 weeks
Monochorionic diamniotic twins	Offer planed birth at 36 weeks after antenatal corticosteroids for fetal lung maturity
Monochorionic monoamniotic twins	Offer planned birth from 32+0-33+6 weeks after antenatal corticosteroids for fetal lung maturity
Triplet Pregnancies	
Trichorionic triamniotic triplets	Offer planned birth at 35 weeks after antenatal corticosteroids for fetal lung maturity
Dichorionic triamniotic triplets	Offer planned birth at 35 weeks (discuss with FMU Consultant) after antenatal corticosteroids for fetal lung maturity
Dichorionic diamniotic triplets	Discuss with FMU Consultant
Monochorionic triamniotic triplets	Discuss with FMU Consultant
Monochorionic diamniotic triplets	Discuss with FMU Consultant
Monochorionic monoamniotic triplets	Discuss with FMU Consultant

8.0 Labour

All women with multiple pregnancies should be advised to give birth on labour ward

- Obstetric consultant, registrar, anaesthetist and neonatologist (if preterm or growth restricted) should be aware of admission. Obstetric consultant should always be present on labour ward for a twin delivery.
- IV access, FBC and G+S should be obtained early in labour
- Premedication as prophylaxis should be given as per protocol
- Continuous monitoring of both twins is advised; consider fetal scalp electrode on first twin once membranes have been ruptured. Uncertainty regarding the condition of the second twin (abnormal FHR or extreme difficulty monitoring) is usually an indication for caesarean section.
- Epidural analgesia is recommended due to the higher risk of intervention which may be required urgently and rapidly. A fully effective epidural, especially in the second stage, reduces the risk of general anaesthesia if operative delivery is required. The risk of vaginal birth followed by caesarean delivery for the second twin in approximately 3-5%. Women should be directed to the 'Labour Pains' website and to the epidural information card in the antenatal period which discusses risks and benefits of epidural analgesia.
- Acute TTTS can occur in an MC pregnancy in labour; therefore a low threshold for CS is advisable if any CTG abnormalities occur
- Theatre team and anaesthetist should be informed in the second stage and the events in second stage must be clearly documented
- First twin may be delivered by a midwife, as for singleton birth, with midwifery team leader and registrar present (Consultant to be present on labour ward)

8.1 Delivery of second twin:

There is no definite evidence about safe interval between the delivery of first and second twins when there is no suspected fetal compromise but there are reports of increase in poor outcome for the second twin if delayed beyond 45 minutes.

- An Oxytocin infusion (*10units Oxytocin in 500mls 0.9% Sodium Chloride)* should be ready for possible decrease of contractions following delivery of the first twin
- The lie of the second twin should be stabilised as the first twin is delivering

- The lie of the second twin should then be assessed, using abdominal palpation, vaginal examination and a portable USS scan
- If not longitudinal, the lie should be corrected either by external cephalic version or by internal podalic version. Both of these manoeuvres are more successful with epidural analgesia.
- The obstetrician must ensure that the lie is stabilised and held by someone manually in longitudinal position until the presenting part fixes and starts to descend into the pelvis
- When a longitudinal lie and regular contractions have been established, pushing should be recommenced, artificial rupture of membranes (ARM) should be performed only when the presenting part is in the pelvis
- Continuous electronic fetal monitoring should be continued and delivery should be expedited if there is any evidence of fetal compromise
- An Oxytocin infusion *(40units Oxytocin in 500mls 0.9% Sodium Chloride)* will be required following birth of the second twin, to be infused over 4 hours (125mls/hr) to prevent uterine atony. Ensure adequate PPH risk assessment has been undertaken on Badgernet throughout labour, including in the second stage.

9.0 Postnatal Care

- Placentae should only be sent to histology (pathognomics) if the pregnancy has been complicated (e.g TTTS, triplet pregnancy, growth restriction, growth discordancy or any other problem)
- Routine postnatal care for mothers, with observation bay care and regular observations if a PPH has occurred
- Complete the oxytocin infusion
- VTE assessment and prophylaxis if required
- Early feeding support
- Appropriate neonatal care/review for babies as per ‘Bobble Hat’ policy and hypoglycaemia protocol

References

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2. NICE Guidance (2011) updated 2019 - Caesarean Section London CG 132
3. Confidential Enquiry into Maternal and Child Health (2015) - Perinatal Mortality London: CEMACH
4. RCOG (2016) Monochorionic Twin Pregnancy - Management (Green-top Guideline No. 51) RCOG
5. Twins Trust (2019) Multiple Pregnancy Antenatal Care Proforma and Care Pathways
6. NICE Guidance (2019) Hypertension in Pregnancy: Diagnosis and Management – NG 133