

## **TWIN PREGNANCY – ANTENATAL CARE**

*This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.*

### **1. AIM**

- Appropriate diagnosis and management of a woman with a twin pregnancy
- Woman appropriately informed about twin pregnancy
- Identification of chorionicity and amnionicity

### **2. PATIENT**

- Woman with a twin pregnancy

### **3. STAFF**

- Medical and midwifery staff
- Sonographers

### **4. EQUIPMENT**

- Cardiotocograph (CTG) machine
- Ultrasound machine

### **5. CLINICAL PRACTICE**

#### **Antenatal care**

- Ensure good quality, accurate ultrasound has been performed to establish dates, chorionicity and amnionicity. This may require a repeat ultrasound and ideally should be performed prior to ten weeks gestation
- Discuss needs of the woman and her family in relation to having twins, arrange social work consultation as needed
- Offer genetic counselling or counselling by medical officer prior to screening for aneuploidy with nuchal translucency (NT) measurement and bloods (Pregnancy Associated Plasma Protein (PAPPA) and  $\beta$  Human Chorionic Gonadotropin (BHCG)), +/- scanning for nasal bone
- Discuss option of Non-Invasive Prenatal Testing (NIPT)<sup>17</sup>
- Offer ultrasound (if not already performed as part of the combined first trimester screen) after appropriate counselling at 11-13+ weeks gestation to assess:
  - viability
  - chorionicity
  - major congenital malformation
  - NT- measurement
  - Twin-Twin Transfusion Syndrome (TTTS)
- Consider low dose aspirin 150mg (ideally started before 16 weeks gestation) for the woman with more than one moderate risk factor for prevention of pre-eclampsia<sup>10</sup> (see RHW Hypertension in Pregnancy LOP)
- Refer to Maternal Fetal Medicine (MFM) team any woman with:
  - monochorionic monoamniotic (MCMA) twins
  - high risk of chromosomal anomalies on NT or NIPT
  - structural or chromosomal anomaly in twins
  - single fetal death in monochorionic twins
  - suspected TTTS
  - severe early onset fetal growth restriction
  - requesting chorionic villus sampling (CVS) or amniocentesis
- Recommend woman has antenatal care through the Multiple Pregnancy Clinic (MPC) at the time of booking

**TWIN PREGNANCY – ANTENATAL CARE cont'd**

- Book the first visit in the MPC at around 16 weeks gestation. Monochorionic Diamniotic (MCDA) twins' first visit should be no later than 16+6 weeks gestation
- Complete multiple pregnancy clinic: first visit checklist at first visit
- Recommend folic acid, iron, calcium and iodine supplements:
  - calcium 1.2 g/day if woman has low calcium intake
  - folic acid 500mcg/day (until 12 weeks gestation) OR 5mg/day for woman at higher risk of spina bifida
  - elemental iron 80-100mg/day (from 20 weeks gestation)
  - iodine 150mcg/day
- Provide woman with Twin Pregnancy Clinic leaflet (see Appendix 1)
- Arrange ongoing care as per clinic schedule (see Appendix 2)
- Arrange fetal morphology scan at 19-20 weeks gestation
- Discuss risk of preterm birth if cervical length is  $\leq 25$ mm at 18-24 weeks
- Discuss conditions that are more frequent in twin pregnancies than singletons including:
  - Maternal conditions: anaemia, hypertension, pre-eclampsia, gestational diabetes, post-partum haemorrhage, caesarean section
  - Fetal conditions: congenital anomalies, growth restriction, twin to twin transfusion syndrome, malpresentation<sup>16</sup>
- Discuss incidence of prematurity and management of babies born prior to 32 and those born before 37 weeks gestation
- Discuss the “grey zone” around resuscitation between 23 and 25+6 weeks' of gestation (as per the NSW consensus<sup>15</sup> document). Offer discussion with neonatology team as appropriate
- Arrange serial ultrasounds for growth and well-being according to chorionicity and clinical concern:
  - Monochorionic (MC) twins:
    - two weekly from 16 week gestation screening for growth discordancy and TTTS plus middle cerebral artery (MCA) dopplers from 20 weeks
  - Dichorionic Diamniotic (DCDA) twins (uncomplicated):
    - four weekly for growth from 24 weeks (e.g. 24, 28, 32 and 36 weeks)
- Plot growth for each fetus using twin specific growth charts to determine interval growth and overall growth velocity
- Calculate inter-twin size difference (as %) at each ultrasound using estimated fetal weight (EFW):
 
$$\frac{\text{larger twin EFW} - \text{smaller twin EFW}}{\text{larger twin EFW}} \times 100$$
- Recommend increased ultrasound surveillance if:
  - Inter-twin difference is  $\geq 20\%$
  - one or both twins EFW is  $\leq 10\%$
  - discordance in amniotic fluid/abnormal amniotic fluid (deepest pocket  $>8$ cm or  $<2$ cm) in monochorionic twin pregnancy
  - umbilical artery (UA)/ MCA dopplers are abnormal
- Perform screening for gestational diabetes as per Diabetes Mellitus (GDM) – Gestational - screening and management SESLHDPD/282
- Advise women with MC twins to report promptly any sudden increases in abdominal size, lower back pain, vaginal discharge, breathlessness or reduced fetal movement, as these may be a sign of TTTS
- Encourage all women to attend the antenatal breastfeeding group and offer individual consultation with lactation team if required

## TWIN PREGNANCY – ANTENATAL CARE cont'd

- Refer for multiple birth antenatal education classes at RHW
- Refer to NSW Multiple Birth Association and other support networks

### Birth plan

- Discuss with woman her fertilized risks and benefits of vaginal versus caesarean birth and document her decision and informed written consent
- Provide written patient information regarding mode and timing of delivery (see appendix 3)
- Commence birth plan discussion by the 30 week visit and include:
  - Recommendation for delivery at 37-38 weeks in uncomplicated DCDA twins, or 36-37+0 weeks in uncomplicated monochorionic diamniotic (MCDA) twins due to the increased risk of stillbirth
  - Arrange an antenatal consultation with neonatology team if birth planned for < 34 weeks. This may include a tour of the Newborn Care Centre
- Recommend a vaginal birth in a woman with an uncomplicated twin pregnancy according to the following criteria<sup>9</sup>:
  - the first twin is in a cephalic presentation
  - the inter-twin size difference is <20 % or < 500 g
  - there are no other obstetric contraindications to vaginal birth
- Discuss and document recommendations for intrapartum care including:
  - Intravenous (IV) access
  - continuous electronic fetal monitoring (CEFM)
  - epidural anaesthesia
  - active third stage management
  - prophylactic postpartum haemorrhage (PPH) prevention
- Discuss recommendation of delivery by caesarean section with a non-cephalic first twin presentation, or refer for further consultation/second opinion if woman wishes to explore the option of vaginal birth
- Discuss with woman who, and how many people, are likely to be present at the birth and possible need for obstetric intervention, including instrumental birth, caesarean section and episiotomy

## 6. DOCUMENTATION

- Medical record
- Antenatal yellow card

## 7. EDUCATIONAL NOTES

- The Royal College of Obstetricians and Gynaecologists (RCOG) consensus view arising from the 50<sup>th</sup> Study group: Multiple pregnancy (2005) recommended that<sup>17</sup>:
  - Hospitals should organise antenatal and postnatal care around specialist-led, multidisciplinary multiple pregnancy clinics
  - Mothers with a multiple pregnancy have a need for specific information, including discussion of delivery, postnatal wellbeing and breastfeeding
  - The role of midwives and other healthcare specialists is integral to the management of multiple pregnancies within specialist clinics
- The vast majority of multiple gestations are twins. The incidence of multiple pregnancy is increasing and currently makes up 1.6% of all births in Australia<sup>16</sup>
- There are two types of twins in terms of zygosity<sup>16</sup>:
  - Monozygous twins i.e. formed when a single fertilized ovum divides into two individuals. One third of twins are monozygotic. Of these (80%) form a MCDA pregnancy, 20% DCDA, and approximately 1% become MCMA.
  - Dizygous twins occur when two separate ova are fertilized by two different sperm. These always form DCDA pregnancy

## TWIN PREGNANCY – ANTENATAL CARE cont'd

- 80-90% of DCDA twin pregnancies will be dizygous (non-identical), with the remainder monozygous (identical). If the fetal sexes are the same on ultrasound it is not possible to determine if the twins are monozygous or dizygous before birth without performing genetic testing
- All MC twins are monozygous (identical)
- Perinatal mortality is 3-5 times higher in twins than singletons, with significantly higher losses in MC twins (11%) compared with DC twins (5%)<sup>5</sup>
- Determination of chorionicity is crucial for correct risk assessment, counselling and management for complications such as TTTS, fetal growth restriction and single fetal death. The best time to diagnosis chorionicity by ultrasound is at 10-13 weeks gestation<sup>7</sup>
- Due to the increased number of fetuses, the risk of a chromosomal abnormality is increased in a multiple pregnancy. Nuchal translucency screening for aneuploidy has been shown to be accurate for twin gestations, but serum screening in twins is less sensitive and has higher false positive rate than in singletons. Discordant nuchal translucency measurements may be a marker for later development of TTTS in MCDA twins<sup>11</sup>
- Non-invasive prenatal testing (NIPT) or cfDNA testing for trisomies is validated for twin pregnancies (both mono- and dichorionic). Because of the lower fetal fraction per twin, there is a higher failure rate in dichorionic twin pregnancies of NIPT (average fetal fraction per twin is 0.8x that of singleton pregnancies). The performance of cfDNA testing for trisomy 21 in twin pregnancies is similar to that reported in singleton pregnancies<sup>11, 12</sup>. Co-twin demise is a contra-indication to perform a NIPT<sup>12</sup>
- Structural defects are 2-3 times more common in live born MC twins than in DC twins
- Preterm birth occurs in 60% of twins and is the major contributor to the increased perinatal mortality rate in multiple births<sup>8</sup>
- Transvaginal ultrasound assessment of cervical length at 22-24 weeks is less accurate as a positive predictor of preterm birth in twins than in singletons. Progesterone has shown some reduction in preterm birth and improvement in neonatal outcomes in twin pregnancies with a short cervix ( $\leq 25$  mm) in mid-trimester<sup>8,13</sup>
- Growth discordance is one of the most common complications of twin pregnancy. It may be a marker of placental insufficiency, genetic or structural anomalies. Evidence of fetal growth restriction, rather than discordance *per se*, predicts adverse neonatal outcome. Serial scans throughout pregnancy are recommended given the inadequacy of clinical assessment of growth in multiple pregnancies<sup>9</sup>
- TTTS occurs in 10-15% of monochorionic twins and has a very high perinatal mortality rate without treatment. Urgent referral to the NSW Fetal Therapy Centre at RHW for consideration of laser ablation of placental anastomoses should be made in any case of suspected TTTS
- There have been large population-based studies that show the stillbirth rate of twins after 38 –40 weeks is similar to the stillbirth rate for a singleton pregnancy beyond 42 weeks<sup>5</sup>. There is also retrospective data showing that monochorionic twins have a higher rate of unexplained stillbirth after 32 weeks (ranging from 0.9% to 4.6%) that may justify elective delivery before 37 weeks<sup>6</sup>
- The large randomised study “the twin birth trial” showed that in twin pregnancy between 32 weeks 0 days and 38 weeks 6 days of gestation, with the first twin in the cephalic presentation, planned caesarean delivery did not significantly decrease or increase the risk of fetal or neonatal death or serious neonatal morbidity, as compared with planned vaginal delivery<sup>3</sup>. Some observational studies have found a small increased risk in perinatal mortality and morbidity in the second twin with vaginal birth compared to caesarean section however a meta-analysis has found no difference<sup>5,6</sup>. The twin birth study was underpowered to ascertain the risks to the term fetus with vaginal delivery. In general, a trial of labour for DCDA or MCDA twins with a vertex first twin should be offered, if the second twin is not significantly larger (inter-twin size difference is  $<20\%$  or  $< 500$  g)<sup>6</sup>

## TWIN PREGNANCY – ANTENATAL CARE cont'd

- There is some uncertainty regarding safety and efficacy of planned Vaginal Birth After Caesarean (VBAC) in twin pregnancies, however a previous caesarean is not an absolute contra-indication. A large study showed a successful VBAC rate of 45% (of 1850 twin pregnancies) with a uterine rupture rate of 0.9%<sup>14</sup> Careful individualised counselling by a consultant is required before offering an attempted VBAC in a twin pregnancy.

### 8. RELATED POLICIES/ PROCEDURES/CLINICAL GUIDELINES

- Twin Pregnancy – intrapartum vaginal birth guideline
- Monoamniotic twins - management
- Higher order multiple pregnancy – Antenatal Care
- NSW Ministry of Health. Maternity - Management of Monochorionic Twin Pregnancy. GL2020\_011. 2020
- Diabetes – Gestational Diabetes Mellitus (GDM) Screening and Management SESLHDPD/282
- Third Stage Management Following Vaginal Birth
- Anaemia and Haemoglobinopathies in Pregnancy
- Iron Deficiency – Management in Maternity and Gynaecology/Oncology patients
- Fetal Heart Rate Monitoring – Maternity – MoH GL2018/025
- Assisted vaginal birth guideline – SESLHDGL/050
- Breastfeeding - protection promotion and support
- Women who choose to refuse recommended monitoring and treatment in Maternity Services in SESLHD – SESLHDPR/482
- Progesterone prevention of Preterm Labour

### 9. RISK RATING

- Low

### 10. NATIONAL STANDARD

- Partnering with Consumers – Standard 2
- Comprehensive Care – Standard 5
- Communicating for Safety – Standard 6

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**REVISION & APPROVAL HISTORY**

Reviewed and endorsed Maternity Services LOPs group 9/3/21  
Approved Quality & Patient Care Committee 16/11/17  
Amendment made to No 5, 10<sup>th</sup> dot point under Antenatal Care to bring in line with SESLHD GDM policy, November 2016  
Patient leaflet reviewed August 2015  
Approved Quality & Patient Safety Committee 21/8/14  
Reviewed Maternity Services LOPs group 12/8/14  
Approved Quality & Patient Safety Committee 15/3/12  
Reviewed Obstetrics LOP Committee December 2011 – no change  
Approved Quality & Patient Safety Committee 18/6/09  
Reviewed April/May 2009  
Approved Quality Council 18/4/05

**FOR REVIEW : APRIL 2026**



## MULTIPLE PREGNANCY CLINIC

The Royal Hospital for Women provides expert care and support to women and their families who are expecting twins. We have a dedicated Multiple Pregnancy Clinic (MPC) which provides a cooperative approach to your care. All women expecting twins are offered antenatal care through this clinic.

When you are first confirmed with a twin pregnancy, you will find out what type of twins you are expecting. They can be:

- **Monochorionic twins**, which occurs when one fertilised egg divides into two to form two embryos. These twins are always identical. They have the same genes and chromosomes, and are always the same sex. These twins **share the same placenta**. They usually have their own sac in the womb, although occasionally, they can share the same sac
- **Dichorionic twins**. These twins have their own **placentas and sacs**. 80-90% of the time they occur when two separate eggs are fertilised by two different sperm, and they are non-identical (fraternal). They may be the same or different sexes. Fraternal twins are more common than identical and tend to run in families. The rest of the time they are formed when one fertilised egg divides very early in the pregnancy, and the twins are identical. It is not always possible to be certain if the twins are identical or not before birth.

### What we do

The MPC clinic aims to:

- Provide for the special needs of the woman and her family when preparing for the birth of twins
- Provide consistency and continuity of care throughout the pregnancy
- Practice cooperative care (obstetricians, midwives, social workers, neonatologists) according to the best available evidence and guidelines
- Support women to make informed decisions regarding their care and birth
- Improve clinical care and reduce the number of hospital visits needed by combining ultrasound scans with antenatal appointments
- Provide assistance with psychosocial support in the antenatal and postnatal period along with links to community supports

### Who are we?

The team is made up of different staff, consisting of a full range of medical, midwifery and allied health staff. The weekly clinic is staffed by:

- Doctors: an obstetrician with expertise in ultrasound, an advanced trainee in obstetrics (Clinical Fellow) and an obstetric registrar
- Registered Midwives
- Ultrasonographers

You may also meet others within the team such as social workers, dietician, obstetric physician, mental health midwife, physiotherapist, lactation consultant, paediatrician or anaesthetist if required.

### Where are we?

We are located in the Department of Maternal Fetal Medicine, just next to the Department of Medical Imaging and outpatients on Level 0. Antenatal visits and ultrasound scans take place here.

### **Antenatal care protocol for Dichorionic (DC) twins (two separate placentas)**

The first visit usually occurs before 20 weeks of pregnancy. At this visit you will meet the doctors and midwives involved in your care

- At 18-20 weeks of pregnancy, an ultrasound (fetal morphology) is performed in the Department of Medical Imaging
- Regular ultrasounds to monitor your babies' growth and well-being are performed every 4 weeks from 24 weeks. These ultrasounds are performed during the clinic session times and are combined with your antenatal visit so the results can be discussed with you
- More frequent ultrasounds may be required if any medical concerns arise during your pregnancy
- Antenatal visits occur at 20, 24 and 28 weeks of pregnancy, then fortnightly visits to 34 weeks of pregnancy, and then weekly thereafter until your birth
- Blood tests to screen for diabetes are performed at 26-28 weeks of pregnancy
- A full blood count and iron studies are performed at 26-28 weeks and 34 weeks of pregnancy
- Formulating a birth plan will occur around the 30-32 weeks of pregnancy
- A vaginal swab for Group B Streptococcus testing is taken at 34 weeks of pregnancy
- In a healthy, uncomplicated dichorionic twin pregnancy, birth at around 37-38 weeks of pregnancy is usually recommended. This can involve either induction of labour and a vaginal birth, or a caesarean section

### **Antenatal care protocol of Monochorionic (MC) twins (one shared placenta)**

When twins share one placenta they do require closer attention. Sometimes problems may arise during pregnancy if the placenta is not helping the twins to grow and develop appropriately. In addition to the usual schedule as above for DC twins, there are more ultrasounds and on average, earlier birth is planned.

- Ultrasound scans from 16 weeks every 2 weeks to monitor for twin-twin transfusion syndrome or growth problems. These ultrasounds are performed in the MPC.
- Birth is usually recommended at 36-37+0 weeks in a healthy uncomplicated MC twin pregnancy.

### **Postnatal**

- Often women will stay in hospital around 5 days depending on the type of birth and support needed.
- The Midwifery Support Program (MSP) will often see you once you've gone home. They can help support the transition to parenting and feeding at home (you do need to live in the hospital area).
- At 6-8 weeks you need a postnatal check-up, usually with your GP (family doctor). It is very important that you find a GP if you don't already have one. (Please let us know your GP's details when you find one, so we can keep your GP informed of your progress).

### **How can you learn more?**

- We recommend you attend childbirth education classes for multiple pregnancy as they are designed specifically for multiple births. These weekly sessions provide an opportunity to learn about becoming the parents of twins and are a good way to meet other women and their partners (There is a fee for this course- book via the website under the *Having a Baby* tab).
- We also recommend the free breastfeeding information session every Thursday morning at 10.30am (book via the website under the *Having a Baby* tab)
- The Department of Anaesthetics have a free monthly information session called Pain relief Options in Labour (book via the website under the *Having a Baby* tab)
- Visit the website of the **Australian Multiple Birth Association (AMBA)** at [www.amba.org.au](http://www.amba.org.au) for more useful information



## Contacting us

- For any Concerns about yourself or your baby call the **Delivery suite 24hrs a day on 0439869035**
- For making appointments directly with the Multiple Pregnancy Clinic, call the Department of Maternal Fetal Medicine on 9382 6098.
- For enquiries about antenatal education classes  
<https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women>
  - Click on: Services and Clinics
  - Click on: Having a Baby
  - Click on: Antenatal classes and Yoga – more information
  - Please click here to download list of classes and online booking (Having a Baby More than One a multiple specific class)
- For other departments, ring the main switchboard on 9382 6111 and ask for assistance.

Appendix 2

**Schedule of visits** and ultrasounds for monochorionic diamniotic (**MCDA**) and dichorionic diamniotic (**DCDA**) twins in twin clinic - **MGP midwives are encouraged to attend MPC visits if possible**

	<b>MCDA - MPC</b>	<b>DCDA – MPC &amp; MGP</b>
<b>VISITS</b>	2 weekly from 16 weeks to 34 weeks Weekly from 34 weeks to delivery at 36-37w	4 weekly to 28 visits 2 weekly to 34 weeks Weekly from 34 weeks to delivery by 38w
<b>U/S</b>	Nuchal 11-13+ weeks MFM Scan 16w (MPC) 2 weekly scans (MPC) Morph 19-20w (ideally in U/S dept)	Nuchal 11-13+weeks Morph 19-20 weeks (ideally in U/S dept) Growth 24,28,32,36 weeks (in U/S dept)
<b>WEEKS</b>	<b>MCDA - MPC</b>	<b>DCDA – MPC&amp;/or MGP</b>
11-13+	Booking-OPD Nuchal Ref/NIPT (U/S dept)	Booking-OPD Nuchal Ref/NIPT (U/S dept)
16	1 <sup>st</sup> MPC pathway Morph Referral (U/S dept) Scan in MPC and arrange scans every 2 weeks	1 <sup>st</sup> MPC & MGP Pathway Morph Referral (U/S dept) Do referrals for all scans
19-20	MPC visit, morphology scan	MPC visit, Morphology scan*
24	MPC visit Request for bloods at 26-28	MPC visit and scan* Request for bloods at 26-28
28	MPC visit GTT/FBC+/- Anti D	MPC visit and scan* GTT/FBC+/-Anti D
30	MPC visit Birth discussion/plan	MPC or MGP visit Birth discussion/plan if MPC
32	MPC visit Request for bloods	MPC visit and scan* Continue birth discussion/plan Request for bloods
34	MPC visit FBC/LVS +/- Anti D	MPC or MGP visit Continues birth discussion FBC/LVS +/- Anti D
35	MPC visit	MPC or MGP visit
36	?DELIVERY	MPC visit and scan*
37	DELIVERY	MPC visit
38		DELIVERY

Abbreviations: MFM= maternal fetal medicine, MGP= midwifery group practice, FBC= full blood count, LVS= low vaginal swab, U/S= ultrasound, OPD= outpatient department \* scan in U/S department

## Giving Birth to Twins

Giving birth to twins requires skilled care and support. There are various medical and personal issues to take time to think about when determining the best timing and mode of birth. This information sheet aims to answer some of the commonly asked questions, however, each pregnancy is unique. Decisions regarding the birth of your twins will be a shared process with you and your team. This process is about making an individual plan that is right and safe for you and your babies.

### When is the best time to give birth to twins if there have been no problems during the pregnancy?

- **Twins that each have their own placenta** (dichorionic diamniotic or **DCDA** twins) have the lowest rate of serious health problems when they are born at 37-38 weeks, compared with those born earlier or later than this. There have been large studies that show the stillbirth rate of twin's increases after 38-40 weeks. Current practice is to plan birth at 37-38 weeks regardless of the type of birth.
- **Twins that share a placenta but have their own sac** (monochorionic diamniotic or **MCDA** twins) have a higher rate of unexpected stillbirth after 32 weeks (estimates range from 1 to 4 in a 100) than twins that each have their own placenta (dichorionic twins). Earlier delivery around 36-37 weeks is often recommended even when everything appears to be going well.
- **Twins that share both a placenta and sac** (monochorionic monoamniotic or **MCMA** twins) are much less common but have a much higher complication rate. Even if all is going well in these pregnancies, delivery is usually by caesarean section by 32-34 weeks gestation.

### What is the best way to give birth to twins – vaginal birth or caesarean section?

This is a balance of the risks and benefits to you and the babies. Your preferences for the type of birth is always important in the decision-making process, however the medical considerations that are important include:

- the position of the babies, especially the first twin (head down or not)
- the growth and well-being of the twins
- the gestational age and weight of the twins
- your obstetric history and how you gave birth to any previous babies
- In general, a vaginal birth is recommended if the first twin is head-first, well-grown and both babies are similar in size
- There is no conclusive medical evidence to assess the best mode of delivery for twins when the first twin is presenting head-first and the second twin is not head-first. Generally, giving birth vaginally is recommended
- If the first twin is not presenting head-down, then an elective caesarean section will be recommended
- Some women may choose to have a caesarean section when they are having twins regardless of the position of the babies.

### What are the advantages of giving birth vaginally compared with elective caesarean section?

- A faster recovery after the birth with less chance of fever, and less restrictions on your mobility in the early postnatal period
- Avoiding a Caesarean section scar on the uterus which can impact on future pregnancies
- Less chance of the babies having breathing difficulties in the first few days of life compared to babies born by caesarean section without labour

## **What are the disadvantages of giving birth vaginally?**

Generally the birth of the first twin proceeds like any other birth, but it is recognised that the second twin is at higher risk of complications in labour compared with the first twin. These problems can be:

- changes to the second twin's heart rate pattern that can be abnormal
- bleeding or early separation of the placenta
- malpresentation (i.e. baby turning sideways or breech) leading to a need for extra assistance for delivery

There is a risk of requiring an emergency caesarean section in labour if complications develop. The chance of the second twin needing a caesarean after the first twin has been born vaginally is about 5 in 100.

## **Where can I get more information about caesarean section?**

The RHW patient information leaflet "Information for women having a caesarean section" gives more detailed information about caesarean section (please ask for this if needed).

## **How we monitor the wellbeing of your babies in labour?**

- We check the position of the babies with an ultrasound on your arrival to delivery suite
- We recommend that both babies have their heart rate continuously monitored throughout labour with a cardiotocograph (CTG) monitor that is strapped to your tummy. Sometimes a fetal scalp electrode (FSE- a fine wire attached on the baby's head) may be used to more closely monitor the first baby's heart beat
- We recommend that you have an intravenous cannula or "drip" inserted in your arm to enable fluids and medications to be administered if needed
- An epidural is recommended as this allows for assistance with the birth of babies if an urgent situation occurs. It also offers pain relief in labour.
- A senior doctor, midwives and paediatric staff will be present for the birth
- Routine measures (injection of oxytocin and a stronger infusion of the same medication) to facilitate prompt delivery of the placenta(s) and to reduce blood loss after the birth of the twins will be recommended to reduce the risk of postpartum haemorrhage (excessive blood loss). This is a more common problem when you have a twin pregnancy.

The Delivery Suite staff will discuss some of these issues again with you when you come in to give birth. Our staff are committed to ensuring the best outcomes for you and your babies and will do all they can to help you make informed decisions.

Please feel free to discuss any further questions with your medical and midwifery team.

Appendix 3

**Schedule of visits** and ultrasounds for monochorionic diamniotic (**MCDA**) and dichorionic diamniotic (**DCDA**) twins in twin clinic - **MGP midwives are encouraged to attend MPC visits if possible**

	<b>MCDA - MPC</b>	<b>DCDA – MPC &amp; MGP</b>
<b>VISITS</b>	2 weekly from 16 weeks to 34 weeks Weekly from 34 weeks to delivery at 36-37w	4 weekly to 28 visits 2 weekly to 34 weeks Weekly from 34 weeks to delivery by 38w
<b>U/S</b>	Nuchal 11-13+ weeks MFM Scan 16w (MPC) 2 weekly scans (MPC) Morph 19-20w (ideally in U/S dept)	Nuchal 11-13+weeks Morph 19-20 weeks (ideally in U/S dept) Growth 24,28,32,36 weeks (in U/S dept)
<b>WEEKS</b>	<b>MCDA - MPC</b>	<b>DCDA – MPC&amp;/or MGP</b>
11-13+	Booking-OPD Nuchal Ref/NIPT (U/S dept)	Booking-OPD Nuchal Ref/NIPT (U/S dept)
16	1 <sup>st</sup> MPC pathway Morph Referral (U/S dept) Scan in MPC and arrange scans every 2 weeks	1 <sup>st</sup> MPC & MGP Pathway Morph Referral (U/S dept) Do referrals for all scans
19-20	MPC visit, morphology scan	MPC visit, Morphology scan*
24	MPC visit Request for bloods at 26-28	MPC visit and scan* Request for bloods at 26-28
28	MPC visit GTT/FBC+/- Anti D	MPC visit and scan* GTT/FBC+/-Anti D
30	MPC visit Birth discussion/plan	MPC or MGP visit Birth discussion/plan if MPC
32	MPC visit Request for bloods	MPC visit and scan* Continue birth discussion/plan Request for bloods
34	MPC visit FBC/LVS +/- Anti D	MPC or MGP visit Continues birth discussion FBC/LVS +/- Anti D
35	MPC visit	MPC or MGP visit
36	?DELIVERY	MPC visit and scan*
37	DELIVERY	MPC visit
38		DELIVERY

Abbreviations: MFM= maternal fetal medicine, MGP= midwifery group practice, FBC= full blood count, LVS= low vaginal swab, U/S= ultrasound, OPD= outpatient department \* scan in U/S department