MCDA twin pregnancy care plan MATF139	
Type: Care Plan	**HDSS Certification Standard**
Issued by: PPG Group	**Version:** 1.1
Applicable to: HVDHB Maternity	**Contact person:** Midwifery Educator
Lead DHB: HVDHB	**Level:**

Purpose:

This is a recommended guideline for the care of any Mono Chorionic Di Amniotic twin pregnancy, but needs to be individualised for the pregnant person.

Scope:

For the purposes of this document, staff will refer to:

All staff within Hutt Valley DHB. This includes staff not working in direct contact with patients/consumers. Staff are taken to include anyone engaged in working to the Hutt Valley DHB. This may include but is not limited to:

- Employees irrespective of their length of service
- Agency workers
- Self-employed workers
- Volunteers
- Consultants
- Third party service providers, and any other individual or suppliers working in Hutt Maternity, including Lead Maternity Carers, personnel affiliated with third parties, contractors, temporary workers and volunteers
- Students

Points of care for MCDA twins

MCDA twins are a **transfer of care** to Secondary Care (MOH 2012) – early Obstetric review is critical. Once MCDA twins are diagnosed, it is highly recommended that **all scans** be organised through the hospital ultrasound department and not through private providers. Where this is not possible, consistency of scanning provider is recommended.

LMCs must recommend transfer of clinical responsibility from the LMC to a Specialist, although LMCs may retain their role providing Primary Care for the pregnant person if not transferring this to the Community Midwifery Team

- If the pregnant person declines referral to Secondary Care, they ought to be informed that this is their right.
- LMCs can follow the care plan without referral if the pregnant person declines, but with Obstetric Team is also recommended.

MFM consultation or referral (possibly urgent) is indicated for discordant Nuchal Translucency (NT) or Crown Rump Length (CRL) in 1st trimester, fetal anomaly, selective FGR (sFGR), twin-to-twin transfusion syndrome (TTTS), twin oligohydramnios / polyhydramnios sequence (TOPS), twin

anaemia-polycythaemia sequence (TAPS), twin reversed arterial perfusion (TRAP) sequence, or fetal demise of one twin.

GROW charts are not validated for use in twin pregnancy, though can still be helpful. It is recommended to use the GROW in conjunction with non-customised ASUM biometry chart (the Intergrow 21 calculator can be helpful).

ANTENATAL CARE PLAN

Week	Care Level	☑	RECOMMENDATION	
Booking	1°	☐	Routine antenatal booking and care	
		☐	Viability scan: dating, labelling of twins, chorionicity (treat as MCDA if any doubt) ± NT	
		☐	Measure pregnant person's height and weight, and **create GROW chart** • Allows correct identification of BMI • Allows identification of previous SGA / FGR / LBW	
		☐	Transfer of antepartum and intrapartum care to Secondary Care (LMC may retain Primary Care role)	
		☐	Recommend **folic acid 5mg daily** and **iodine 150 mcg daily**	
		☐	Consider offering **aspirin 100mg daily** from 12 to 36 weeks – organise through MAU	
		☐	Offer **influenza vaccination** at any point in pregnancy	
		☐	Review modifiable risk factors: cigarette smoking, recreational drug use, obesity (limiting weight gain)	
		☐	Review if other venous thromboembolism risk factors – if potentially ought to be started on antenatal Clexane, mention this on referral (RCOG GTG 37a)	
9 – 13	1°	☐	Offer MSS 1 combined screening (recommend NT scan even if declines as increased risk of fetal anomaly)	
12 – 14	2°	☐	Secondary care review and pregnancy care plan to be made	
14 – 20	1°	☐	Offer MSS 2 combined screening (if not done MSS 1)	
16	2°	☐	Scan: growth, SDP & UA PI	Obstetric ANC clinic review
18	2°	☐	Scan: growth, SDP & UA PI	Obstetric ANC clinic review
20	2°	☐	Anatomy scan: growth, SDP, UA PI, MCA PSV ± TV cervical length	Obstetric ANC clinic review
22	2°	☐	Scan: growth, SDP, UA PI & MCA PSV	Obstetric ANC clinic review
24	2°	☐	Scan: growth, SDP, UA PI & MCA PSV & fetal echo	Obstetric ANC clinic review
24-30	1°	☐	Offer antenatal referral to Lactation Consultant	
26	2°	☐	Scan: growth, SDP, UA PI & MCA PSV	Obstetric ANC clinic review

26 – 28	2°	☐	Glucose tolerance test (not Polycose) recommended	
28	2°	☐	Scan: growth, SDP, UA PI & MCA PSV	Obstetric ANC clinic review
28 – 32	2°	☐	Offer **pertussis vaccination**	
		☐	Birth plan – three-way consultation with pregnant person, obstetric team and LMC/Hospital Midwives	
30	2°	☐	Scan: growth, SDP, UA PI & MCA PSV	Obstetric ANC clinic review
32	2°	☐	Scan: growth, SDP, UA PI & MCA PSV	Obstetric ANC clinic review
34	2°	☐	Scan: growth, SDP, UA PI, MCA PI & MCA PSV	Obstetric ANC clinic review
36	2°	☐	Scan: growth, SDP, UA PI, MCA PI & MCA PSV	Obstetric ANC clinic review
36	2°	☐	Recommend birth – induction of labour or caesarean birth as indicated (aim birth by 37 weeks)	

CALCULATING GROWTH DISCORDANCE

$$\frac{Big\ EFW - Small\ EFW}{Big\ EFW} \times 100 = \%\ Growth\ Disrecpancy$$

≥25% discrepancy is statistically significant for selective fetal growth restriction (sFGR)

sFGR needs an urgent discussion ± referral to MFM

SHORTENED CERVIX

Offering vaginal progesterone (**Utrogestan 200mg PV at night** – needs PHARMAC Special Authority) to asymptomatic women with a twin pregnancy and a cervix <25mm on transvaginal ultrasound scan, reduced the risk of preterm birth occurring at <30 and <35 weeks, neonatal mortality and some measures of neonatal morbidity, without any demonstrable deleterious effects on childhood neurodevelopment. (Romero 2017)

MODE OF BIRTH

Vaginal birth recommended	**Leading / presenting twin is cephalic**
Caesarean birth recommended	**Leading twin is non-vertex,** **sFGR, especially if leading twin is the smaller**

BIRTH PLAN

Birth plan needs to be carefully discussed and documented antenatally by both Obstetric and Midwifery staff.

Establish whether LMC wishes to be involved in birth.

Offer early epidural, as it is useful if internal manoeuvres are required for the birth of the second twin (more common if second twin non-vertex) or needs an urgent caesarean birth (more likely to need a general anaesthetic if no epidural).

- Support the decision of pregnant people who do not opt for an epidural in labour

Inform the pregnant person of 4% risk of needing caesarean birth for second twin following vaginal birth for the first (Barrett 2013).

INTRAPARTUM CARE

Inform on-call **Obstetric RMO,** Anaesthetic Registrar and Theatre Co-ordinator on admission (and liaise with **Obstetric SMO**).

Inform on-call **Paediatric Registrar** on admission, and ensure SCBU beds are available.

IV access on admission, and send FBC and Group & Hold.

If unsure about fetal presentation, confirm with bedside ultrasound scan.

Ensure roles for Obstetric and Midwifery staff are discussed and agreed:

- As person under Secondary Care and labour care should be overseen by Obstetric staff
- Midwifery labour care can be provided by LMC midwife with Core Midwifery support, or by Core Midwives alone
- One-to-one midwifery intrapartum care advised

Continuous intrapartum care recommended – approx. 2% risk of acute intrapartum TTTS: Immediate delivery indicated if signs of this occurring. Acute TTTS is difficult to detect and signs of hypoxia should be acted upon immediately

- A sinusoidal rhythm, presents in some, but not all, cases of fetal anaemia

If a CTG becomes abnormal for one or both twins, contact ACMM and obstetric registrar (not SHO) or SMO immediately.

AT FULLY DILATED

Inform **Obstetric RMO and SMO.**

Paediatric RMO and **SCBU nurse** attendance at birth indicated for all monochorionic twin births, irrespective of mode of delivery.

Inform t**heatre co-ordinator** and a**naesthetic registrar** in case need urgent transfer to theatre (consider doing this earlier in labour too).

Prepare room for birth, including two resuscitaires, ultrasound scanner in room, oxytocin augmentation preparation.

BIRTH OF SECOND TWIN

Obstetric SMO to be present on Birthing Suite prior to birth of first twin if possible, or as soon afterwards as safely possible.

After birth of first twin, options include stabilising the lie of the second twin until engaged; ARM if cephalic; ECV or IPV if appropriate; breech extraction if in non-vertex lie.

Recommended to monitor fetal heart rate of the second twin using continuous CTG.

Expedite the delivery of the second twin if concerns about fetal distress – by caesarean if needed.

The interval between birth of the two twins is determined by the wellbeing of the second twin:

- If there are concerns with the CTG – birth needs to be expedited
- Oxytocin for augmentation is appropriate to stimulate effective contractions in order to minimise the inter-twin birth interval

If birth needs expediting and/or baby non-vertex, consider internal podalic version (IPV) and breech extraction, or external cephalic version (ECV)

Active third stage of labour – **oxytocin 5 units IV or 10 units IM**, and consider a prophylactic **oxytocin infusion 40 units in 1000ml Normal Saline over 4 hours. Monitor for PPH.**

CORD CLAMPING

There is no evidence for delayed cord clamping in MCDA twins; there is a risk of acute TTTS at birth for the first twin.

First twin – aim to clamp cord within 15 seconds due to risk of hypovolaemic shock in second twin.

Second twin – consider delayed cord clamping if baby otherwise well (use 2 x clamps for second twin).

References:

Barrett J et al. A randomized trial of planned caesarean or vaginal birth for twine pregnancy. *N Engl J Med* 2013;369:1295-305 doi

Khalil A etal. ISUOG Practice Guidelines: role of ultrasound in twin pregnancy. *Ultrasound Obstet Gynecol* 2016; 47: 247-263 doi

Ministry of Health. 2012. *Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines)*. Wellington: Ministry of Health doi

NICE Clinical Guideline 129 – Multiple pregnancy: antenatal care for twin and triplet pregnancies. 2011. doi

Romero R et al. Vaginal progesterone decreases preterm birth and neonatal morbidity and mortality in women with a twin gestation and a short cervix: an update meta-analysis of individual patient data. *Ultrasound Obstet Gynecol* 2017;49(3):303-312 doi

Royal Australian and New Zealand College of Obstetricians and Gynaecologists C-Obs 42 Guideline – Management of monochorionic twin pregnancy. 2014. doi

Keywords for searching:

1. Monochorionic diamniotic
2. MCDA
3. Twins
4. Care plan

Informed Consent

The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another

practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).

Tangata Whenua Statement

Hutt Maternity acknowledges the importance of cultural diversity, and in particular the rights of Māori as tangata whenua, in all aspects of clinical practice in Aotearoa New Zealand. As stated in Te Pae Amorangi (Hutt Valley DHB Māori Health Strategy) 2018-2027, Hutt Maternity is committed to fulfilling our role in the active building of relationships between iwi and the Crown under Te Tiriti o Waitangi (Whanaungatanga). This strategy is informed by the principles of Partnership, Participation and Protection. In particular, attention is drawn to:

- **Article one – Kāwanatanga**: actively engaging with local iwi through the Hutt Valley Māori Health Unit
- **Article two – Tino Rangatiratanga**: self-determination; the responsibility to enable Māori to exercise their authority over their own health and determinants of health
- **Article three – Ōritetanga**: equal treatment of peoples; ensuring that policy, guidelines or programmes do not further perpetuate any inequity
- **Article four (the 'oral clause') – Wairuatanga**: spirituality; thriving as Māori and the importance of health providers understanding te ao Māori (the Māori world)