Aneurin Bevan University Health Board

Multiple Pregnancies Management Guideline

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

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1 Executive Summary

This document is a clinical guideline designed to support safe and effective practice and care pf women with a twin of triplet pregnancy in addition to routine care that is offered to all women during pregnancy. The opinion expressed in the guideline are evidence and reflects professional opinion. It is designed to support safe and effective practice.

1.1 Scope of policy

This guideline applies to staff and teams providing maternity services to women with a multiple pregnancy.

1.2 Essential Implementation Criteria

Auditable standards are stated.

2 Aims

To provide support for clinical decision making.
To provide support for evidences based management.

3 Responsibilities

The Maternity and Gynaecology Management team

4 Training

Staff are expected to access appropriate training where provided. Training needs will be identified through appraisal and clinical supervision

5 Monitoring and Effectiveness

- Local service improvement plan will guide monitoring and effectiveness. This policy has undergone an equality impact assessment screening process using toolkit designed by NHS centre Equality and Human rights.
- Details of the screening process for this policy are available from the policy owner.

6 References

1 – Dodd. J., Doweswell. T. and Crowther C.A. Specialised Antenatal Clinics for women with a multiple pregnancy for

improving maternal and infant Outcomes. The Cochrane Review. Nov 2015.
2 – National Institute for Clinical Excellence. Twin and Triplet pregnancy Guidance. September 2019. NG137.

Introduction:

Multiple pregnancy is associated with higher risk for both mother and babies. These patients require more antenatal contact than women with singleton pregnancies with an aim to reduce these risks[1]. All women with a multiple pregnancy should be booked under Consultant Led Care

For many women their multiple pregnancy will be diagnosed at their dating scan during their first booking appointment for routine antenatal care. From this appointment women should be offered specialist or individualised care with the Consultant or Fetal Medicine teams.

Determining Gestational Age and Chorionicity (ideally performed at same scan appointment).

Gestational age – Estimated gestational age should be determined from the largest baby in the pregnancy to avoid the risk of estimating it from a baby with early growth pathology. This should be a crown rump length taken when the CRL measures between 45.0mm and 84.0mm (approx. 11+2 and 14+1 weeks).

Chorionicity and amnionicity – should be determined at the time of detecting multiple pregnancy by USS. Where transabdominal assessment is difficult (retroverted uterus, high BMI) use a transvaginal scan to determine chorionicity and amnionicity.

- Number of placental masses
- Presence of amniotic membrane(s) and membrane thickness.
- The lambda or T-sign

Assign nomenclature to babies

- Upper twin, Lower twin
- Right or left twin

This needs to be clearly documented in the notes to ensure consistence throughout the pregnancy.

In the event a multiple pregnancy presents after 14+0 weeks determine chorionicity and amnionicity at the earliest opportunity by USS using the following:

- Number of placenta masses
- Presence of amniotic membrane(s) and membrane thickness
- The lambda or T-sign
- Discordant Sex.

If it is not possible to determine chorionicity or amnionicity in a multiple pregnancy seek help from senior sonographer or refer to a

healthcare professional who is competent in determining chorionicity and amnionicity (via fetal medicine clinic) by USS as soon as possible. If unable to determine chorionicity manage the pregnancy as a monochorionic pregnancy until proven otherwise.

Types of Multiple pregnancy – Chorionicity and Amnionicity.

- *Twin Pregnancies*

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.

- *Triplet Pregnancies*

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 hace separate sacs.
Dichorionic Diamniotic triplets	One baby has a separate placenta and amniotic sace and 2 of the babies share a placenta and amniotic sac.
Monochorionic triamniotic triplets	All 2 babies share 1 placenta but each baby has its own amniotic sac.
Monochorionic diamniotic triplets	All 3 babies share a 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.

Antenatal Care:

Coordinate care for women with a multiple pregnancy to

- Minimise the number of hospital visits.
- Provide care as close to the women's home as possible
- Provide continuity of care within and between hospitals and the community.

Schedule of specialist ANC appointments – where possible combine scan appointments with Antenatal clinic review.

Please refer all MCDA and triplet pregnancies to our local fetal medicine team.

Please refer all multiple pregnancies with a <u>shared amnion</u> to tertiary level fetal medicine for individualised care (either Cardiff or Bristol).

Gestation	DCDA (8 appts)	MCDA (11 appts)	TCTA (9 appts)	DCTA (11 appts)	MCTA (11 appts)
Booking	**X**	**X**	**X**	**X**	**X**
16 week scan		**X**		**X**	**X**
16 week appt no scan	**X**		**X**		
18 week scan		**X**		**X**	**X**
20 week anomaly scan	**X**	**X**	**X**	**X**	**X**

22 week scan		**X**		**X**	**X**
24 week Scan	**X**	**X**	**X**	**X**	**X**
26 week scan		**X**	**X**	**X**	**X**
28 week scan	**X**	**X**	**X**	**X**	**X**
30 week scan		**X**	**X**	**X**	**X**
32 week scan	**X**	**X**	**X**	**X**	**X**
34 week scan		**X**	**X**	**X**	**X**
34 week appt no scan	**X**				
36 week scan	**X**				

Screening for Fetal Complications of multiple pregnancy:

- *Fetal growth restriction in dichorionic twins or trichorionic triplet pregnancies*:

At each Ultrasound scan from 24 weeks calculate Estimated fetal weight of each baby and amniotic fluid levels. Plotting the EFW of each baby will identify discordant growth. AFI please measure the deepest vertical pocked on either side of the amniotic membrane.

Monitoring for fetal weight discordance at intervals that do not exceed:

- 28 days for dichorionic twin pregnancy
- 14 days for women with trichorionic pregnancy.

Increase diagnostic monitoring in the second and third trimester to atleast weekly and include doppler assessment of the Umbilical Artery flow for each baby if:

- EFW discordance >20% and/or
- EFW of any baby is below the 10th centile for gestational age.

Refer to fetal medicine if the EFW discordance >25% or EFW of any baby is <10th centile for growth.

- *Feto-fetal transfusion syndrome can affect any multiple pregnancy where any of the babies share a placenta and a chorionic membrane.*

Offer USS every 14 days from 16 weeks until birth – EFW of each baby and AFI assessment.
Increase the frequency of diagnostic monitoring in the second and third trimester to atleast weekly if there are concerns about the difference between the babies amniotic fluid index and include an umbilical doppler assessment.

- Difference in DVP of 4cm or more.

Refer women to fetal medicine clinic if:

- Amniotic sac of 1 baby has a DVP of <2cm **and**
- amniotic sac of another baby has a DVP depth of >8cm if <20+0 or >10cm is >20+0.

- *Preterm Delivery*

Multiple pregnancy has a higher risk of spontaneous preterm birth than women with a singleton pregnancy. 60% of twin pregnancies deliver spontaneously before 37 weeks and 75% of triplet pregnancies spontaneously deliver before 35 weeks.
Aim for targeted steroids +/- Magnesium Sulphate infusion (if <32 weeks gestation) when spontaneous preterm birth is likely.

Maternal Complications of multiple pregnancy:

- *Hypertension.*

Measure BP and urinalysis for proteinuria at each antenatal contact.
Advise women with a multiple pregnancy to take low dose aspirin daily from 12 weeks until birth if they have 2 or more risk factors specified in NICE guideline for hypertension in pregnancy.

Indications for referral to Fetal Medicine team.

- Pregnancies with a shared amnion
- Multiple pregnancies complicated by the following:
    1. Fetal weight discordance of 25% or more
    2. EFW of any baby below the 10th centile
    3. Discordant fetal death
    4. Feto-fetal transfusion syndrome
    5. Twin reverse arterial perfusion syndrome (TRAP)
    6. Conjoined twins/triplets.
    7. Suspected TAPS

Mode of delivery:

Ensure delivery has been discussed by 28 weeks.

- Place of birth and possible need for transfer in case of preterm birth.
- Timing and possible modes of delivery
- Analgesia in labour
- Intrapartum fetal monitoring
- Management of the third stage of labour

For women with **uncomplicated** multiple pregnancy aim delivery by:

DCDA twins	37^{+0} – 37^{+6} gestation
MCDA twins	36^{+0} – 36^{+6} gestation
MCMA twins	32^{+0} – 33^{+6} gestation
TCTA DCTA triplets	35^{+0} – 35^{+6} gestation
Complicated multiple pregnancy, MCTA triplets, triplet pregnancy with shared amnion.	Individualised delivery plan

For women who decline birth plan at the timing recommended offer weekly appointments with Consultant team and perform weekly AFI and umbilical doppler assessment and fortnightly growth scans.

- Mode of Delivery

Uncomplicated twin pregnancy their mode of delivery whether vaginal or planned caesarean section are both safe choices if the following apply.

- The pregnancy remains uncomplicated and has progressed beyond 32 weeks
- No obstetric contraindications to labour.
- First baby is cephalic presentation.
- No significant size discordance between the twins.

Offer Caesarean Section to women if the first twin is not cephalic at the time of planned birth.

Offer caesarean section to women in established pre-term labour between 26+0 and 32+0 if the first twin is not cephalic.

MCMA mode of delivery

Offer Caesarean section to all women with a MCMA pregnancy:

- At the time of planned birth (32+0 – 33+6)
- After any complication diagnosed in her pregnancy requiring early delivery
- If she is in established labour and gestational age suggests there is a reasonable chance of survival of the babies – UNLESS first twin is close to vaginal birth and a Senior Obstetrician advises continuing to vaginal birth.

Triplet pregnancy mode of delivery:
Offer caesarean section to all women with a triplet pregnancy

- At the time of planned birth (35+0 – 35+6)
- After any complication is diagnosed in her pregnancy requiring earlier delivery.
- If she is in established preterm labour and gestational age suggests that there is reasonable chance of survival of the babies.
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Intrapartum Care:

Continuous CTG monitoring should be offered to all women with a twin pregnancy in established labour >26+0 gestation. Consider separating the fetal heart rates by 20bpm if there is difficulty differentiating them.
FSE can be used for twin 1 only after 34+0 weeks and there is no contraindications.

Perform an USS when in established labour to confirm which twin is which, presentation of each twin and locate fetal hearts.

For women between 23+0 and 25+6 in established labour, involve senior obstetrician in discussion with the women and family regarding monitoring of the fetal heart rates.

Offer Epidural analgesia to all women having a vaginal delivery of twins:

- Improve chance of successful timing of assisted vaginal birth of all the babies
- Enable quicker birth by emergency caesarean section if needed.

After the birth of the first baby:

Continuous to monitor second twin using CTG.
Commence Syntocinon infusion to maintain contractions.
Consider USS to confirm presentation of twin 2.
If there are CTG concerns and vaginal delivery cannot be achieved within 20 mins discuss performing emergency LSCS.

Offer Active management of the 3rd stage to all women with multiple pregnancy delivering >28 weeks.

Post partum Care:

No Specialist additional care required compared to normal.
Offer Contraception to all women. Offer Mirena coil if Caesarean Section delivery is planned.

Quick reference

	DCDA twins	MCDA Twins	TCTA triplets	DCTA and MCTA triplets
Antenatal Appointments	8 minimum	11 minimum	9 minimum	11 minimum
Scan interval	Every 4 weeks from anomaly	Every 2 weeks from 16 weeks gestation	Anomaly then every 2 weeks from 24 weeks gestation.	Every 2 weeks from 16 weeks gestation.
Referral to local fetal Medicine unit	No *	Yes	Yes	Yes
Aim Delivery (if uncomplicated)	$37\text{-}37^{+6}$	$36\text{-}36^{+6}$	$35\text{-}35^{+6}$	DCTA – $35\text{-}35^{+6}$ MCTA – individualised delivery plan

* - referral to fetal medicine unit if any of the following
1. Fetal weight discordance of 25% or more
2. EFW of any baby below the 10^{th} centile
3. Discordant fetal death

All pregnancies with a single amnion – referral to tertiary fetal medicine centre.