Bwrdd Iechyd Prifysgol Abertawe Bro Morgannwg University Health Board

Management of Multiple Pregnancy

Author:	Antenatal Forum, Maternity Services
Date Approved:	May 2017
Approved by:	Quality & Safety Group
Date for Review:	April 2020

Type of pregnancy	Timing of appointments plus scans	Timing of birth	Management plan
Uncomplicated monochorionic diamniotic twins	Dating and chorionicity scans between 11-13^{+6} 16,18,20,22,24,26,28,30,32,34 weeks Total 11 appointments (this is in excess of the 9 appts suggested by NICE)	36^{+0}-37 weeks	• Consider steroids before delivery; • If delivery not accepted by woman weekly AFV,Doppler and growth scan every two weeks; • Discuss risks.
Uncomplicated dichorionic pregnancy	Dating and chorionicity scans between 11-13^{+6} 20,24,28,32,36 Total 8 appointments	37-38 weeks	• If delivery not accepted by woman weekly AFV,Doppler and growth scan every two weeks; • Discuss risks.
Uncomplicated monochorionic triamniotic triplets Uncomplicated dichorionic triamnoitic triplets	Dating and chorionicity scans between 11-13^{+6} 16,18,20,22,24,26,28,30,32,34 Total 11 appointments	35^{+0}-36	• Consider steroids before delivery; • If delivery not accepted by woman weekly AFV,Doppler and growth scan every two weeks; • Discuss risk.
Uncomplicated trichorionic triamniotic triplets	Dating and chorionicity scans between 11-13^{+6} 20,24,28,32,34 Total 7 appointments	35^{+0}-36	• Consider steroids before delivery; • If delivery not accepted by woman weekly AFV,Doppler and growth scan every two weeks.

Gestational age

Women with multiple pregnancies should be offered a first trimester scan between 11 weeks to 13 +6 weeks to estimate the gestational age and determine chorionicity.
The largest baby to be used to estimate the gestational age in multiple pregnancies to avoid the risk of estimating it from a baby with early growth pathology
Currently Down's screening is not provided on NHS in Wales for Multiple pregnancies

Chorionicity

The twins should be assigned a number and this should be documented to ensure consistency
After 14 weeks of gestation the chorionicity should be determined at the earliest opportunity using all of the following. A second opinion should be sought if in doubt. Factors to aid in the diagnosis are

- The number of placental masses
- The lambda or the T sign
- The membrane thickness
- Discordant fetal sex

A pregnancy should be managed as monochorionic if it there is uncertainty
A TV scan could be used if the TA scan is limited by BMI
A care plan should be documented early in the pregnancy

General care

Women with multiple pregnancies should be given the same advice regarding diet, lifestyle and nutritional supplements as in routine antenatal care.
Due to high risk of anaemia perform a full blood count at 20-24 weeks and repeat at 28 weeks

Specialist care

Care for a woman in multiple pregnancies should be provided by a team which includes the following – Specialist Obstetrician, midwives, and ultrasonographers with experience in managing multiple pregnancy.

The team should be able to provide information and support and make opportunities available for further discussions regarding mental health and well being, nutrition, risks such as preterm labour, steroids for fetal lung maturation, timing and possible mode of delivery, breast feeding and parenting
Enhanced team of referrals may include a perinatal mental health professional, a women's health physiotherapist, an infant feeding specialist and a dietician. Such referral should be made based on each woman's needs.
The antenatal appointments are as specified in the summary sheet
If needed an opinion on management can be sought from or a referral made to the tertiary centre.

Fetal complication

Women should be informed that currently Down's screening is not offered for multiple pregnancies in Wales. On discussion regarding Down's screening information should be offered

- The greater likelihood of Down's syndrome in multiple pregnancies
- Increased likelihood of being offered invasive testing in multiple pregnancies
- Greater likelihood of complications of invasive testing
- The physical risks and psychological implications in short and long term relating to selective fetal reduction

Screening for structural abnormalities

Offer screening for structural abnormalities in multiple pregnancies as in routine antenatal care
Monitoring the Feto-fetal transfusion syndrome should include:

1) Growth scans every two weeks in Monochorionic pregnancies including UA Doppler
2) Deepest liquor pool measurements should be between 2-8 cm and the presence of the fetal bladders should be documented
3) Start monitoring with USS for feto-fetal transfusion syndrome (to identify membrane folding) from 16 weeks.
4) Carry out weekly monitoring of multiple pregnancies with membrane folding or other possible early signs of feto-fetal transfusion syndrome (specifically, pregnancies with intertwine membrane infolding and amniotic fluid discordance) to allow time to intervene if needed.

Monitoring for IUGR

Estimate fetal growth discordance using two or more biometric parameters at each USS from 20 weeks. Aim to undertake scans at intervals of less than 28 days. Consider a 25% or greater difference in size between the twins or triplets as a clinically important indicator of IUGR and consider a further opinion

Maternal complications

Hypertension

1 Measure BP and test urine for proteinuria to screen for hypertensive disorder at each antenatal appointment in twin and triplet pregnancies as in routine antenatal care.

2 Advise 75 mg of aspirin daily from 12 weeks until the birth of the babies if they have one or more of the following risk factors for hypertension-First pregnancy, age 40 years or over, pregnancy interval of more than 10 years, BMI of more than 35, Family history of pre-eclampsia, pre term birth

Be aware that women with multiple pregnancies have a higher risk of spontaneous preterm labour if they have had a spontaneous preterm birth in previous singleton pregnancies

No interventions are proven, alone or in combination to prevent spontaneous preterm birth in multiple pregnancies

Indications for referral to (or an opinion from) a tertiary level fetal medicine centre

- Monochorionic monoamniotic twin pregnancies
- Monochorionic monoamniotic triplet pregnancies
- Monochorionic diamniotic triplet pregnancies
- Dichorionic diamniotic triplet pregnancies
- Pregnancies complicated by any of the following
    - Fetal anomaly
    - Discordant fetal death
    - Feto-fetal transfusion syndrome

Timing of birth

- Inform women that 60% of twin pregnancies result in spontaneous birth before 37 weeks of gestation and 75% of triplet pregnancies result in spontaneous birth before 35 weeks of gestation
- Spontaneous or elective preterm birth results in an increased risk of admission to the special care baby unit.
- Offer delivery for uncomplicated MCDA twins from 36 weeks and for uncomplicated DCDA twins from 37 weeks.
- Offer delivery for uncomplicated triplets from 35 weeks.
- For woman who decline elective birth, offer weekly appointments with the specialist obstetrician. At each appointment offer an USS and perform weekly AFV and UA Doppler assessments and fortnightly fetal growth scans

NICE guideline 129 September 2011

Management of Delivery in Multiple Pregnancy

Third trimester:

1. Discuss mode of delivery again around 34-36 weeks.
2. Mode of delivery depends on presentation of 1st twin, and presence or absence of any other complicating factors.
3. Previous caesarean is not a contraindication for vaginal delivery for twins.
4. If the first baby presents as cephalic, vaginal delivery is appropriate.
5. If 1st twin is breech then caesarean section is advisable.
6. The woman should be counselled that the complication rates could be higher for caesarean section in twin pregnancy.

Indications for Caesarean section:

- Mono-amniotic pregnancy
- Placenta praevia
- Certain congenital anomalies
- First twin not cephalic

Induction of labour:

- Decision to induce labour must be made by a senior obstetrician

Management of First Stage of Labour

1. The woman should be attended by the **most senior midwife available**.
2. **On-call Consultant, Obstetric Registrar, Anaesthetist and theatre staff and neonatal unit should be informed of the mother's admission.**
3. Establish IV access, take blood and send for FBC, G&S
4. Oral ranitidine 150mg 6 hrly
5. Reconfirm presentation of 1st twin and locate both fetal hearts by scan
6. Continuous fetal heart rate monitoring of both the twins and simultaneous maternal pulse recording should be commenced when in established labour. In case of difficulty in recording both twins, the scanner should be used to locate the fetal heart again. Also, a fetal scalp electrode on presenting twin may facilitate separate recording. Usually, one fetal heart rate will be shown at a rate 20 beats per minute faster than the actual rate to distinguish between the two heart rates.
7. If CTG abnormality on 1st twin is suspected then a fetal blood sampling should be considered. If the CTG is abnormal on 2nd twin, caesarean section should be performed.
8. Epidural is strongly recommended to facilitate intrauterine manoeuvres for delivery of second twin if needed. This should be started as early as possible.
9. Augmentation should be considered if the cervix dilates less than one cm in two hours.

Management of second stage of labour

Twin 1

1. Twin delivery should be undertaken/supervised by an obstetrician with adequate experience
2. Prepare room in advance:
a. Twin delivery pack
b. Instrumental delivery pack
c. USS
d. Oxytocin infusion ready
3. The attendants should include:
a. Two midwives (One senior)
b. One HCA
c. The obstetric registrar and if required the consultant
d. Anaesthetist
e. Two paediatricians
f. An ODA should be available immediately if required. (need not remain in the delivery room)
4. Prepare the mother. Keep her informed. Explain who will be present for delivery and their role.
5. Delivery of first twin with cephalic presentation can be undertaken by the attending midwife. Indications for instrumental delivery are same as in singleton pregnancy.

Twin 2

No specific time interval needs to be set provided there is continuous electronic FHR monitoring which is reassuring throughout.
1. Establish lie/presentation of 2nd twin by abdominal palpation, USS and vaginal examination. Many transverse lies will correct themselves when the tone in the uterus returns after a period of rest.
2. Ensure good fetal heart rate monitoring
3. Allow 5 to 10 minutes of rest for the mother.
4. If still transverse lie, perform external cephalic/podalic version and stabilize lie until presenting part descends in the pelvis Internal podalicversion is hardly ever necessary; do not attempt if you have never done this before!
5. If uterine contractions do not restart after 15-20' commence a syntocinon infusion @ 3mls/hr after external version.
.
7. Perform amniotomy if regular contraction and presenting part is in the pelvis. Thereafter proceed to a vaginal delivery (cephalic or breech).
8. Do not haste, rush or panic in delivering second twin. As long as the fetal heart rate is satisfactory, there is plenty of time for the second twin to place a suitable presenting part into the maternal pelvis. In case of fetal heart rate deceleration of the second twin after birth of the first, an immediate amniotomy is indicated, not a 'crash' section unless presenting part very high
9. The babies should be seen by the paediatricians immediately after birth.

Management of third stage of labour

Once both the twins are delivered an appropriate oxytocic should be given. Each placenta should be easily identified by suitably marked instruments or by number of cord clamps. Deliver placentas by CCT. Observe for postpartum haemorrhage. If epidural, watch for urinary retention.

Caesarean Section

Caesarean Section of multiple gestation presents anaesthetic and surgical challenges due to the large uterus and the exaggerated physiological response to pregnancy. Sometimes a vertical uterine incision is necessary when babies are in unusual or entwined positions (discuss with consultant).

COMPLICATIONS

Complications will need to be assessed on an individual basis and a clear plan needs to be documented in the notes.

Preterm/Very low birth weight

There is little evidence of difference in outcome between vaginal delivery and caesarean section in very low birth weight gestations.
The consultant's presence should be requested for all vaginal twin deliveries between 24 and 34 weeks.
In precipitate deliveries where the consultant is not present the delivery should be conducted by the most experienced person on site.

Higher order multiple pregnancies

All risks of twin pregnancy are multiplied significantly for higher order multiple pregnancies. The safer mode of delivery will usually be by Caesarean Section.

Directorate of Women & Child Health

Checklist for Clinical Guidelines being Submitted for Approval by Quality & Safety Group

Title of Guideline:	Management of Multiple Pregnancy
Name(s) of Author:	Marsham Moselhi / Madhu Dey
Chair of Group or Committee supporting submission:	Antenatal Forum / Labour Ward Forum
Issue / Version No:	2
Next Review / Guideline Expiry:	April 2020
Details of persons included in consultation process:	All Consultant Obstericians, Labour Ward Forum and Antenatal forum
Brief outline giving reasons for document being submitted for ratification	This guideline brings together 2 guidelines: 1 for antenatal care and 2nd for care in labour. We now have one guideline for Management of Multiple Pregnancy
Name of Pharmacist (mandatory if drugs involved):	n/a
Please list any policies/guidelines this document will supercede:	
Keywords linked to document:	Multiple, twins,
Date approved by Directorate Quality & Safety Group:	May 2017
File Name: Used to locate where file is stores on hard drive	

* To be completed by Author and submitted with document for ratification to Clinical Governance Facilitator