Twin pregnancies – Intrapartum Management

Target audience	Maternity staff
Patient group	Patients with uncomplicated twin pregnancies

Summary

This guideline is for the management of the following patients with uncomplicated monochorionic diamniotic (MCDA) or dichorionic diamniotic (DCDA) twin pregnancies in labour:

- The pregnancy has progressed beyond 32 weeks of gestation.
- The presenting twin is in a cephalic presentation.
- There are no obstetric contraindications to a vaginal birth.
- There is no significant size discordance.
- The woman chooses vaginal birth.

This guideline covers the following aspects of birth:

- Admission assessment.
- Fetal monitoring.
- Anaesthesia/analgesia.
- Birth of twin 1.
- Preparing for the birth of twin 2.
- Cephalic presentation of twin 2.
- Non-cephalic presentation of twin 2.
- Third stage.

Offer an individualised plan of care in conjunction with consultant, the woman and her family, for those with twin pregnancies in spontaneous labour less than 32 weeks of gestation, to establish the safest mode of birth.

Contents

Admission to the labour ward

- Inform the on-call team of the patient's admission, including the obstetric team, anaesthetist and the neonatal unit.
- Assess maternal condition and a full set of maternal observations (including pulse, blood pressure, temperature, oxygen saturations and respiratory rate) on the MEOWS (Modified Early Obstetric Warning Score) chart.
- Perform urinalysis.
- A large bore intravenous cannula (14G) should be sited and blood obtained for full blood count (FBC) and group and save (G&S).
- If less than 26 weeks of gestation, discuss with the consultant and the family how to monitor the fetal hearts during labour.
- Perform abdominal palpation and perform bedside ultrasound scan to confirm the presentation of each twin and to locate the fetal hearts.
- Commence continuous electronic fetal monitoring (CEFM).
- Perform vaginal examination (VE) to assess progress.

Fetal monitoring

- CEFM of both twins is mandatory and must be continued throughout labour. It is imperative that there is a differentiation between the two fetal heart rates to avoid the possibility that only one fetus is being monitored. This should be confirmed at every review of the cardiotocogrph (CTG). If any doubt exists, then another ultrasound should be performed.
- Ideally use dual channel CTG monitors to allow simultaneous monitoring of both fetal hearts.
- Document which trace belongs to which baby and differentiate these from the maternal pulse.
- Consider separating the fetal heart rates by 20bpm (beats per minute) if necessary to differentiate the traces.
- If two monitors are being used, placing them both on the same side of the patient will allow easier comparison and differentiation of the fetal heart rates.
- Review the CTG at least hourly (or more frequently if concerns) and confirm which trace belongs to which baby. Ensure both babies are being monitored.
- If there is difficulty monitoring both babies abdominally:
    - perform a scan to identify and confirm both babies' heartbeats.
    - Consider the use of a fetal scalp electrode (FSE) in babies over 34 weeks of gestation.
    - If there is ongoing difficulty with ensuring adequate monitoring of both babies, consider caesarean birth.
- Interpret the CTG's according the "Fetal Heart Rate Monitoring in Labour" guideline available on the Right Decision Service (RDS) app.
- If the CTG is **suspicious** in the **first** baby:
    - Inform senior obstetrician and midwife.
    - Correct any reversible causes.

    - Consider FSE if not already applied and the baby is more than 34 weeks of gestation.
- If the CTG is **pathological** in the **first** baby:
    - Inform senior obstetrician and midwife.
    - Consider a fetal blood sample (FBS) if the baby is more than 34 weeks of gestation, taking into consideration the woman's wishes, the progress of her labour and any other risk factors.
    - Consider caesarean or assisted vaginal birth if feasible, aiming for birth within 20 minutes.
- If the CTG is **suspicious or pathological** in the **second** baby:
    - Inform senior obstetrician and midwife.
    - Consider caesarean or assisted vaginal birth if feasible, aiming for birth of both babies within 20 minutes.

Anaesthesia

- Anaesthetic staff should be informed of the woman's admission.
- Discuss epidural anaesthesia with the patient. This can provide adequate analgesia throughout labour and allows prompt assistance for assisting the birth of either twin.
- Offer alternative analgesia to the woman if she declines an epidural.

Birth of twin 1

- Ensure that a syntocinon infusion, ergometrine and syntometrine are available in the birthing room.
- Prepare resuscitation facilities for birth of the babies in case this should be required.
- Ensure the ultrasound scanner is readily available.
- Manage the birth of twin 1 as in a singleton pregnancy and consider optimal cord clamping.
- The obstetric registrar, anaesthetist and neonatal team should be alerted when delivery is imminent and should be present within labour ward.
- In an otherwise uncomplicated labour, however, there is no need for all personnel to be present in the delivery room and consideration should be given to the privacy of the woman.
- **Syntometrine/syntocinon/ergometrine should NOT be given at birth of twin 1.**

Following delivery of twin 1

- Inform the on-call team of the birth of twin 1.
- Palpate the abdomen to check that the second twin is lying longitudinally and confirm presentation by bedside ultrasound scan.
- Maintain CEFM.

Cephalic presentation of twin 2

- If twin 2 has both a longitudinal lie and a cephalic presentation and fetal monitoring is satisfactory, allow twin 2 to descend into the pelvis.
- Once engaged, an amniotomy should be performed.
- **DO NOT PERFORM AN AMNIOTOMY WITH A HIGH HEAD** due to the risk of cord prolapse.
- A FSE may be applied if external monitoring is technically difficult and if the baby is more than 34 weeks of gestation.
- Assess uterine contractions – if thought to be inadequate or infrequent, commence an intravenous (IV) infusion of oxytocin (see "Oxytocin Use in Labour" guideline on the RDS app). If this is already in use, double the current infusion rate.
- Manage the birth as for twin 1.

Non-cephalic presentation of twin 2

- If the lie is not longitudinal, attempt correction to a cephalic presentation (ideally) or breech by external version and maintain CEFM.
- Confirm correction to longitudinal lie and presentation by bedside ultrasound scan.
- Assess uterine contractions – if these have diminished, commence an IV oxytocin infusion. If this is already in use, double the current infusion rate.
- Providing fetal monitoring is satisfactory, allow twin 2 to descend into the pelvis. Once the vertex or breech is fully engaged, an amniotomy may be performed.
- **DO NOT PERFORM AN AMNIOTOMY WITH A HIGH HEAD/BREECH PRESENTATION** due to the risk of cord prolapse.
- A FSE may be applied if external monitoring is technically difficult.
- Aim for a spontaneous vertex birth or assisted breech birth within 30 minutes of the birth of twin 1 and consider optimal cord clamping.
- Thereafter **consider the** use of forceps, ventouse or breech extraction.
- Where 30 minutes have passed and the presenting part is still not in the pelvis or delivery has not been achieved, it may be appropriate to wait further in the presence of a normal fetal heart rate pattern. The on-call consultant should be notified and further management discussed.
- In the presence of fetal heart rate abnormalities:
    - Consider an assisted vaginal birth if the presenting part is below the ischial spines.
    - Consider caesarean birth if the presenting part is above the ischial spines.
    - If the operator has the expertise or is directly supervised by a consultant with the expertise, consider the option of internal version and breech extraction. Internal extraction is easier with intact membranes and the membranes should not be ruptured (if possible) until one or both fetal feet have been securely grasped.

The third stage

- **After** birth of twin 2, actively manage with intramuscular administration of syntometrine or IV syntocinon 5 units.
- Do not offer physiological 3rd stage.
- Consider an infusion of 40 units syntocinon in 500 ml sodium chloride 0.9% at a rate of 125 ml per hour, to prevent uterine atony and postpartum haemorrhage.

References

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