INTRAPARTUM MANAGEMENT FOR A PLANNED VAGINAL TWIN BIRTH

KEY WORDS
Twin, fetal, multiple pregnancy, fetal monitoring, intravenous access, analgesia, first twin, second twin, uterine atony, abruption, placenta, postpartum haemorrhage

BACKGROUND INFORMATION
Complications of twin births can include fetal malpresentation, cord prolapse, dysfunctional uterine contractions, abruptio placenta, premature rupture of the membranes, uterine atony, and immediate postpartum haemorrhage.¹

MANAGEMENT OF A TWIN BIRTH

<table>
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<th>PROCEDURE</th>
<th>ADDITIONAL INFORMATION</th>
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<tr>
<td>1 Admission</td>
<td>The Senior Registrar, Consultant and Anaesthetic Registrar / Consultant should be advised of admission by the Obstetric Registrar.</td>
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<td>If a woman presents in labour with a multiple pregnancy notify the:</td>
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<tr>
<td>• Midwifery Labour and Birth Suite Coordinator</td>
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<td>• Consultant</td>
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<td>• Obstetric Registrar</td>
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<td>• Resident Medical Officer (RMO)</td>
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<td>2 Intravenous Access</td>
<td>Risk for both intrapartum and postpartum haemorrhage is increased with multiple pregnancy.²</td>
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<td>2.1 Insert an intravenous large bore cannula (16g)</td>
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<td>2.2 Collect blood for:</td>
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<td>• Full blood picture</td>
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<td>• Group and hold</td>
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<td>• Cross-match blood if indicated e.g. anaemia</td>
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3 Fetal monitoring
Monitor the fetal heart rates (FHR) with the cardiotocograph (CTG) continuously in active labour (>4cm).

Consider application of a fetal scalp electrode on twin one, and external monitoring on twin two if it is difficult to maintain continuous monitoring.2

4 Analgesia
Discuss the option and benefits of intrapartum epidural analgesia.

An epidural is recommended due to the increased risk of operative delivery in twin births, and the possibility of intruterine manipulation of twin two.3

5 Diet and Nutrition
Allow the woman to consume a low fat, low fibre, high calorie diet in labour

The incidence of aspiration pneumonia and Mendelson's Syndrome associated with emergency caesarean section in the developed world is relatively low.4 5 Current evidence suggests that a policy of fasting in labour makes no difference to length of the labour or the obstetric or neonatal outcomes.5

6 Preparation for birth
6.1 Notify obstetric personnel to be present at the birth:
   - Registrar
   - Senior Registrar
   - Consultant if required

If the senior obstetric registrar is not credentialed for twin birth, the Consultant should be present.

6.2 Ensure a portable ultrasound is available

6.3 Advise the theatre coordinator and the duty Anaesthetic Registrar / Consultant that the birth is imminent

Allows theatre to be on ‘stand-by’ mode should complications occur with the birth.

6.4 Notify the neonatal and paediatric staff to attend the birth

6.5 Ensure an oxytocin infusion is available to be used after the first twin is delivered.

Oxytocin infusion may be required if uterine inertia occurs between twin births.2

The oxytocin regime used between twins is:
   - 10 I.U. of oxytocin in 500mL of Hartmann’s or Normal Saline commencing at 6mL/hour

7 Delivery of the first twin
7.1 Conduct the delivery of the first twin, if it is a cephalic presentation, as for a normal birth.

7.2 Withhold the I.M. oxytocin after the birth of the first twin

7.3 Clamp and cut the umbilical cord after the birth of the first twin
7.4 Consider the commencement of an oxytocin infusion in consultation with the obstetric staff. Assists in prevention of uterine inertia. The solution should be titrated according to the frequency/strength of contractions and consultation with medical staff.

8 Delivery of the second twin

8.1 Perform an abdominal palpation and vaginal examination immediately after delivery of twin one. Allows determination of lie and presentation and position of twin two and excludes cord presentation/prolapse.

Confirm fetal presentation by portable ultrasound as required. External cephalic version or internal pedalic manipulation of the fetus may be required for malpresentation.

8.2 Monitor the FHR of twin two continuously. Fetal presentation must be confirmed prior to performing an ARM. Cord presentation must be excluded.

8.3 Perform an artificial rupture of membranes (ARM) when clinically appropriate. Withhold the third stage oxytocin until after delivery of the second twin. If the fetal condition of the second twin is satisfactory, the time factor becomes less important and should be weighed against the clinical situation.

Aim to deliver the second twin within 30 minutes.

8.4 Collect cord blood from both twins after the birth of twin two.

9 Third Stage

9.1 Administer I.M. oxytocin after delivery of the second twin. A prophylactic oxytocin infusion is beneficial to prevent post partum haemorrhage due to the risk of uterine atony which is increased with twin births.

See Clinical Guideline Active management of the third stage following a vaginal birth.

9.2 Commence active management of the third stage. See Clinical Guideline Therapeutic and prophylactic oxytocin infusion regimens.

REFERENCES