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## Twins: Labour and Birth Management Policy

### **Purpose**

The purpose of this policy is to

- Provide safe and consistent care in labour for women with twin pregnancy
- Establish a local approach to care that is evidence based
- Inform good decision making

### **Scope**

- All obstetric staff employed by the Hutt Valley DHB
- All midwifery staff employed by the Hutt Valley DHB
- All Hutt Valley DHB maternity access agreement holders
- Anaesthetic staff
- Neonatal staff

Incidence of multiple births

New Zealand Health Information Service in 2007 reported that there were 1,874 twin births and 32 triplet births out of 55,654 births in 2004. (NZHIS, 2007).

### **Background**

Twin pregnancy and birth is associated with an increased risk of maternal and perinatal morbidity and mortality. Monochorionic twin pregnancies are also at risk for a number of specific complications notably twin to twin transfusion syndrome and twin reversal arterial perfusion. (RANZCOG, 2014).

These include:

Maternal - hypermesis gravidarum; recurrent UTI/pyelonephritis; anemia; miscarriage; preterm labour; polyhydramnios; gestational hypertension/PET; gestational diabetes; malpresentation; worsening of cardiac disease; post partum haemorrhage and DVT.

Foetal -malpresentation; foetal anomalies; intrauterine growth restriction; prematurity; twin to twin transfusion; birth asphyxia/ trauma mostly to second twin; foetal demise, preterm labour and birth; increased frequency of birth asphyxia for twin two.

The risk of perinatal mortality of at least one twin associated with vaginal twin delivery is approximately:

- 1 in 300 for dichorionic/diamniotic twins
- 1 in 100 for monochorionic-diamniotic twins

With vaginal birth at term the second twin has 2-4 x higher risk of perinatal mortality compared to the first twin.

These perinatal risks can be reduced (but not eliminated) by elective caesarean section.

Suitable for vaginal birth will usually have

- The leading twin cephalic
- Weight difference between the twins less than 25%

No other evidence of foetal compromise.

All twins must be referred to secondary care (4018 Multiple Pregnancies – referral category- transfer –see appendix one.)

Plan of care to include: The decision for epidural in labour, or not, is discussed and documented (prior to 30/40 gestation) so that the woman is fully informed of the potential of an assisted birth of the second twin.

All twins (multiple pregnancies) must be discussed in the paediatric/obstetric meeting.

### **Referral to tertiary services (CCDHB)**

Monochorionic monoamniotic twin pregnancy (NICE, 2011)

### **Management of labour in twin pregnancy**

Monochorionic twins even with increased surveillance during pregnancy have a higher stillbirth rate and it is recommended that these women are offered an induction of labour at 37/40. (RANZCOG, 2014).

The consultant obstetrician is responsible for clinical care in labour (Appendix 1)  
All scans should be performed at either CCDHB or HVDHB.

Midwifery Care may be provided by:

- Core midwife
- LMC midwife, if this has been agreed on following the three way conversation regarding the provision of midwifery care.

### **Preparation of room for birth**

- Ensure larger delivery room is used
- Ensure there are 2 resuscitaires checked, warmed and prepared in the room on admission of woman in D/S
- 2 ID baby bracelets on each resuscitaire stating twin 1 and twin 2 including appropriate consent forms and documentation for each baby
- Twin CTG monitor with appropriate connections for FSE
- Baxter IV pump
- Alaris Syringe Driver
- 2 delivery packs
- Prior to the birth of second twin, scanner to be available in the room to determine presenting part.

### **Clinical Care**

- Plan of labour care is documented antenatally in the woman's clinical records
- Inform the Obstetric RMO, Paediatric RMO and SCBU when woman is admitted

- Anaesthetist and theatre staff on site (RANZCOG, 2014).
- Establish IV access at least size 16 gauge cannula
- Bloods taken and sent for CBC, Group and Hold
- Epidural as per plan discussed and documented antenatally.
- Continuous CTG monitoring of both twins during established labour
- Fetal scalp electrode may be considered to pick up the fetal heart of the leading twin if tracing is unreliable.
- Partogram to be used once labour is established
- The labour in twin gestations can sometimes be characterised by ineffective uterine contractions and may need augmentation, this is at the discretion of the Obstetric SMO (Carroll & Yoeman 2006).

The SMO is present for vaginal twin birth.

### **Birth of Leading Twin**

- Inform Obstetric RMO
- Inform Paediatric RMO ( they will then inform the Consultant)
- Cut and clamp cord after first twin is born, no cord blood to be taken until birth of twin two
- One cord clamp to be used to identify cord of twin one
- The first baby is given to mother for skin to skin, ID bands to be attached immediately following birth to prevent confusion

### **Birth of the Second Twin**

- Following the birth of the first twin, palpate to establish presentation of the second twin, perform a scan if necessary.
- Continuous fetal heart monitoring of second twin
- An oxytocin infusion is to be set up and ready to go, according to Hutt Valley DHB protocol and may be commenced at the discretion of the obstetrician. (Appendix 2)
- If the second twin is vertex, perform an AROM when the head is entering the pelvis and encourage the mother to bear down.
- Place 2 cord clamps on the cord of second twin to identify the placenta
- Skin to skin commenced if baby requires no intervention

### **Birth of the non-vertex 2<sup>nd</sup> twin**

This is the obstetrician's decision

- External Cephalic Version
- Assisted vaginal breech delivery
- Internal podalic version
- Caesarean Section

Evidence from retrospective studies indicates that breech extraction is associated with better outcomes than ECV

- Higher Vaginal Delivery Rate
- Less foetal distress
- Less cord prolapse
- Less abruption

### **Third Stage**

- Active management of third stage, 5u IV or 10u IMI of oxytocin or syntometrine 1 amp IMI if there are no contraindications.
- Commence an infusion of syntocinon 10iu/hr (40 units in 1000 mls normal saline to run at 250 mls/hr via Baxter pump)
- In the event of PPH continue as per PPH protocol

### **Post Partum**

Routine postnatal care but observe for DVT and signs of anaemia.

### **References**

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

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) (2014). Management of Monochorionic twin Pregnancy. Australia, Author.

Thorogood, C. & Donaldson, C. (2010). Challenges in pregnancy. In *Midwifery preparation for practice*. S.Pairman, S. Tracy, C. Thorogood, J. Pincombe (Eds.) Elsevier: Sydney.

### **Appendix 1**

#### ***Referral Guidelines***

See the Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) MOH, 2012.

## **Appendix 2**

**Oxytocin is prescribed by the obstetric team on the required prescription and administration of IV medications and fluid chart.**

Draw up 49ml of 0.9% sodium chloride and add 10 units/1 ml oxytocin to give a solution containing 10 units in 50 ml

Connect the syringe to the tubing

Prime the line with the infusion

Connect the syringe and tubing to the syringe pump

Connect the standard giving set to the 1000ml 0.9% sodium chloride, prime this line and connect to the oxytocin infusion.

### *Clinical Management of the oxytocin infusion*

**Initial dose:** 1 mU/min

**Increase infusion rate:** Every 15 minutes

**Action:** double infusion rate

**Maximum dose:** 30 mU/min

**Required contraction frequency:** 3 – 4 contractions in 10 minutes

**0.9% sodium chloride infusion** – maintenance dose administer at 125 mls/hour.

<b>DRUG DOSE</b>	<b>RATE OF ADMINISTRATION (via Graseby syringe Pump)</b>	<b>In Multiparous women, please establish with consultant as to maximum dose before starting infusion and document on medication chart.</b>
1mU/min	0.3 ml/hour	
2mU/min	0.6 ml/hour	
4mU/min	1.2 ml/hour	
6mU/min	1.8 ml/hour	
8mU/min	2.4 ml/hour	Consult in multiparous women
10mU/min	3.0 ml/hour	
15mU/min	4.5 ml/hour	
20mU/min	6.0 ml/hour	
25mU/min	7.5 ml/hour	
30mU/min	9.0 ml/hour	Maximum therapeutic dose primips
40mU/min	12.0 ml/hour	
50mU/min	15.0 ml/hour	

As women who have oxytocin induction of labour or augmentation are at increased risk of postpartum haemorrhage, these women must have active management of the third stage of labour.

### **The infusion should be stopped if there is**

- Pathological CTG changes
- Abnormal scalp PH
- Intrapartum Haemorrhage
- Suspected uterine rupture
- Excessive uterine contractions

### ***Stopping the pump***

When there is a need to stop the syringe pump infusion, ensure the following prior to removing the syringe from the pump.

- The machine is 'stopped'.
- The tubing is clamped off.
- The tubing is disconnected from the main IV at the side arm site.

### ***Recommencing the pump***

If and when the pump is recommenced it is important that the practitioner starts the infusion at 1mu/min and increases the infusion as per the original protocol.

### **Monitoring**

- Frequency/strength of contractions every half an hour
- Blood Pressure and pulse every 30 mins
- Continuous electronic foetal monitoring
- Progress of labour vaginal assessment 2-4 hourly
- Abdominal palpation for descent of the presenting part.
- A partogram should be utilised when oxytocin is commenced.

### **Documentation**

When women have a oxytocin infusion it is expected that a partogram is completed as well as complete documentation in the notes.

- Oxytocin prescription must be recorded on the drug chart.
- The drug dose administered is to be recorded on the partogram.
- Accurate fluid balance must be maintained
- Accurate and complete documentation on contraction pattern and fetal heart response to oxytocin infusion must be included in the clinical notes
- Each time the infusion is increased
- Regularly during the course of the infusion

If there is an adverse reaction either maternal or fetal to the infusion stop the infusion.

Hutt Maternity Policies provide guidance for the midwives and medical staff working in Hutt Maternity Services. Please discuss policies relevant to your care with your Lead Maternity Carer.