HUTT maternity
Hutt Valley Maternity Care

HUTT VALLEY DHB

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Oxytocin Infusion for Induction and Augmentation of Labour Policy

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.

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

Purpose of the protocol

The purpose of this protocol is to

- establish a local approach to care, that is evidence based and consistent
- inform good decision making
- Provide safe and effective care for women and their babies requiring the administration of Oxytocin.

Liaison with the delivery suite charge midwife / ACMM is required to ensure that the delivery suite can accommodate an oxytocin infusion

Oxytocin Regime for Induction or Augmentation of Labour

Indications

- Induction of labour
- Augmentation of labour

Contraindications

- When delay in delivery would compromise mother or baby
- Suspected fetal compromise i.e. abnormal fetal heart trace
- Classical Caesarean Section or Myomectomy with entry to endometrial cavity
- Obstructed labour
- Maternal Cardiac disease or Renal disease
- Inability to proceed to Caesarean section should complications arise

The use of oxytocin

The dose of oxytocin is most effective when it is titrated so that 3 – 4 effective contractions occur every 10 minutes.

Continuous electronic fetal monitoring is required when a woman has an oxytocin infusion.

Regime for oxytocin intravenous administration

Equipment

Alaris pump
Tamper resistant Anti – Syphon PCA combination set
50cc syringe
Oxytocin ampoule 10 IU/ ml.
Diluant: 0.9% sodium chloride
1000ml 0.9% sodium chlorine as a maintenance/concurrent infusion
Solution infusion set
Lever lock cannulae

Procedure

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.

DRUG DOSE	**RATE OF ADMINISTRATION (via Graseby syringe Pump)**	**In Multiparous women, please establish with consultant as to maximum dose before starting infusion and document on medication chart.**
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 Haemorrage
- 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 an 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

Associated Documents

Active management of the third stage of labour
Antacid regime
Electronic fetal monitoring
Labour induction guidelines
Massive obstetric haemorrhage
Primary postpartum haemorrhage management and treatment
Management of acute uterine hypercontractility

References

Baker, L. S., Beaves, M. C., Trikey, D. J. & Wallace, E. M. (2009). Fetal Surveillance: A practical guide. Australia: Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Daniel-Speigel, E., Weiner, Z., Ben-Shlomo, I. & Shalev, E. (2004). For how long should oxytocin be continued during induction of labour. *British Journal of Obstetrics and Gynaecology* 111, 331-334

Howarth, G., Botha, D. J. (2001). Amniotomy plus intravenous oxytocin for induction of labour. *Cochrane Database of Systematic Reviews 2001, Issue 3. Art No.:* CDC003250.DOI:10.1002/14651858.CD003250

NOVARTIS. (2009). Oxytocin® Synthetic oxytocinon 5 IU/ml and 10 IU/ml Solution for injection. New Zealand: Novartis New Zealand Limited, Auckland.

Ustunyurt, E., Ugur, M., Ustunyurt, B. O., Iskender, T. C., Ozkan, O & Mollamahmutoglu, L. (2007). Prospective randomized study of oxytocin discontinuation after the active stage of labor is established. *Journal of Obstetrics and Gynaecology Research.* Dec, 33(6) 799-803.

Informed Consent

The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).