HUTT maternity
Hutt Valley Maternity Care

HUTT VALLEY DHB

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Facilitated by: Eleanor Martin, Educator	Last reviewed: April 2015
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Assisted Vaginal Birth 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

The purpose of this guideline 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

Definition

Instrumental vaginal birth refers to emergency or elective assisted birth using either vacuum extraction (ventouse) or forceps.
(South Australian Perinatal Practice Guidelines Workgroup, 2010).

Background

Instrumental vaginal birth accounts for 7.4-16.4% of all deliveries in 1999-2000 across a spectrum of Australian and New Zealand hospitals (RANZCOG, 2009).

Operative vaginal birth can be avoided using the following recommendations

- All women to have continuous support during labour
- Use of upright or lateral positions in second stage
- Delayed pushing in any woman with a functional epidural**.**

Referral Guidelines:

Prolonged active second stage of labour (5023) Consultation
See the Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) MOH, 2012.

Classification for operative vaginal delivery (RCOG, 2011)

Outlet Fetal scalp visible without separating the labia
Fetal skull has reached the pelvic floor
Sagittal suture is in the anterior-posterior diameter or right or left occiput anterior or posterior position (rotation does not exceed 45 degrees)
Fetal head is at or on the perineum

Low Leading point of the skull (not caput) is at station plus 2cm or more and not on the pelvic floor
Two subdivisions:

- Rotation of 45 degrees or less from the occipito-anterior position
- Rotation of more than 45 degrees including the occipito-posterior position

Mid Fetal head is above plus 2cm but head is not above the spines, no more than 1/5th of the head palpable abdominally

High Vaginal delivery is not recommended in this category.

(Thorp, J.N., 2009 & RCOG, 2011)

Informed consent

- Women should be informed antenatally about instrumental vaginal birth
- For birth in the birthing suite verbal consent is obtained and the discussion documented in the clinical notes. The birth plan can be updated including any preferences or objections to particular instruments. An accurate record of the vaginal birth is documented in the clinical records.
- Written consent is obtained for trial of instrumental birth in theatre and preparations made in the event of a Caesarean being necessary.

Indications for operative vaginal delivery

Each woman should be judged on her own merit taking into account the relative benefits and adverse affects.

- Foetal compromise suspected or anticipated
- Maternal

Delay in the second stage of labour
Maternal fatigue/exhaustion
Any maternal medical conditions e.g.: cardiac disease, cerebral aneurysm, proliferative retinopathy and severe hypertension

Conditions for safe operative delivery

The clinician must be suitably trained in the technique employed or an expert in the chosen procedure.

- There must be a full abdominal, vaginal and pelvic assessment
  Cephalic presentation no more than 1/5th palpable abdominally, a fully dilated cervix and a pelvis deemed adequate. Membranes must be ruptured and exact position of fetal head ascertained.

Preparation of the mother

- Full consent
- Appropriate analgesia. Spinal, epidural or pudendal block

- Empty bladder
- If there is an indwelling catheter the balloon/bulb needs to be deflated
- Consider placing the mother in lithotomy

Clinical considerations

- Appropriate working equipment
- Paediatric RMO called for birth
- Must have a back up plan in place should the baby not birth
- Theatre staff should be immediately available to allow a caesarean section to be performed without delay
- Anticipate complications e.g.: shoulder dystocia and PPH

Operative vaginal births that have a higher risk of failure should be considered a trial and conducted in a place where recourse to caesarean section. Higher rates of failure are associated with:

- Maternal BMI over 30
- Estimated fetal weight over 4000 grams
- Occipito posterior position
- Mid cavity delivery or when more than 1/5th of the head is palpable abdominally

Fetal contra-indications to delivery

- Fetal bleeding disorder (Alloimmune thrombocytopenia)
- Predisposition to fractures (osteogenesis imperfecta)
- Abnormal fetal presentation, parietal presentation, breech, face, brow.
- Maternal hepatitis B and C and HIV can cause vertical transmission Mode of delivery at the discretion and ability of the operator

Choosing appropriate instruments

Forceps and vacuum extraction are associated with different benefits and risks

Serious risks		
Maternal	3rd and 4th degree tear	ventouse: 1-4 in 100 forceps: 8-12 in 100 common
	Extensive or significant vaginal / vulval tear	ventouse: 1 in 10 forceps: 1 in 5 very common
Fetal	Subaponeurotic / subgaleal haemorrhage	ventouse 1 in 300 forceps: 3-6 in 1,000 uncommon
	*Intracranial haemorrhage / skull fracture	5-15 in 10,000 uncommon
	*Facial nerve palsy, corneal abrasion	< 1 in 1,000 to 1 in 10,000 rare
	*Cervical spine injury	< 1 in 1,000 to 1 in 10,000 rare rotational instrumental delivery

Frequently occurring risks		
Maternal	Shoulder dystocia Anticipate if delayed 2nd stage, fetal macrosomia	1-4 in 100 common
	*Postpartum haemorrhage	1-4 in 10 very common
	Vaginal tear / abrasion	≥ 1 in 10 very common forceps more common
	*Anal sphincter dysfunction / voiding dysfunction	1 in 100 common more common in forceps delivery from an OP position when compared with OA position
Fetal	Forceps marks on face	≥ 1 in 10 very common
	Chignon / cup marking on the scalp	practically all cases of ventouse delivery ≥ 1 in 10 very common
	Cephalhaematoma	1-12 in 100 common
	Facial or scalp lacerations	1 in 10 common
	Neonatal jaundice / hyperbilirubinaemia	5-15 in 100 common
	Retinal haemorrhage	7-38 in 100 very common (ventouse delivery)

When to stop
No evidence of progressive descent with moderate traction following three contractions.

Paired cord blood samples are mandatory and the results to be documented in the baby's clinical record

<u>Postnatal care of the woman and her baby</u>

- Regular paracetamol and diclofenac has been shown to be beneficial for perineal pain in the absence of contraindications
- The timing and volume of the first void should be monitored and documented
- Women who have had a spinal anaesthetic or epidural should be recommended to have an indwelling catheter for at least 12 hours
- Urinary incontinence is common after instrumental vaginal birth so early referral to physiotherapist is recommended

- Women who sustain 3rd or 4th degree perineal tears should be managed appropriately and forms for ACC to be completed by the Obstetric RMO at a convenient time.
- Clinical review prior to discharge if indicated

References

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 (2009). Instrumental Vaginal Delivery. Author

Royal College of Obstetricians and Gynaecologists (2011). Operative Vaginal Delivery. Green-Topp Guideline Number 26. Author

The South Australian Perinatal Practice Guideline Work Group (2010). Operative Vaginal Deliveries. Author

Thorp, J.M., (2009) Clinical Aspects of Normal and Abnormal Labour in Maternal Fetal Medicine R.K.Creasy, R.Resnik, J.D.Iams etc. (Eds.) Elsevier: Philadelphia

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).