HUTT maternity
Hutt Valley Maternity Care

HUTT VALLEY DHB

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Improving Skin to Skin Care Following Elective Caesarean Section

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.

Introduction

Hutt Hospital is part of the Baby Friendly Hospital Initiative (BFHI). We are committed to the World Health Organisation goal of achieving skin to skin contact immediately (or within 5 minutes) post-delivery, and continuing it for at least one hour.[1]

The aim of this policy is to facilitate early skin to skin contact, remove the barriers to successful and comfortable skin to skin contact, and increase the duration of uninterrupted skin to skin contact.

This policy is for elective caesarean sections under regional anaesthesia (spinal or epidural,) and is intended to replace the section titled “Following Caesarean Section” in the 2009 “Skin to Skin Following Birth Policy.”[2]

Further rationale for some specific measures can be found in the appendix, if not fully explained in the policy document.

Pre-operative

Antenatal:

Skin to skin care following caesarean section will be discussed with the mother during antenatal care. This discussion should include:

- A description of the process of skin to skin care during a caesarean section
- Consent to perform skin to skin in the operating theatre
- If the mother declines, the option of her partner/support person performing skin to skin in the operating theatre should be discussed
- Consent should be documented on the HVDHB Skin to Skin Care Record provided in the elective caesarean section booking pack.

Day of Surgery

Prior to entering the operating theatre, the HVDHB Skin to Skin Care Record will be consulted by the theatre nurse and the skin to skin plan confirmed with the mother.

Mothers should be in a ‘dome gown’ to allow easy access to chest & arms for skin to skin care. If a standard gown is used the mother’s arms should be removed from her sleeves pre-operatively.

If the partner/support person is planning to do skin to skin in the operating theatre they will be given a theatre jacket (instead of a scrub top) to allow them to do this easily whilst maintaining comfort and theatre infection control standards. They should only be given a theatre jacket if they are planning to perform skin to skin care.

Intra-operative

Time Out:

The skin to skin plan will be confirmed with the entire theatre team during the 'Surgical Time Out.'

Monitoring and Intravenous Access

The anaesthetist and anaesthetic technician will position monitoring and intravenous (IV) access to facilitate successful and comfortable skin to skin care.

- Oxygen saturation probe will be positioned on the toe or ear.
- Electrocardiograph (ECG) electrodes will be positioned away from the anterior chest. The posterior shoulders and lateral chest wall are suitable.
- Non-invasive blood pressure (NIBP) monitoring will be on the upper arm until delivery. After delivery a lower limb cuff can be used. Please see appendix for more details.
- A 16g IV line should be inserted in the posterior hand or lower forearm. The antecubital fossa should be avoided when possible.
- Sequential compression devices (SCD) should be used in all mothers unless contraindicated. Foot devices should be used to allow ankle NIBP monitoring.

After delivery

Delayed cord clamping is recommended practice in elective caesarean sections. During this period the newborn will be dried and stimulated by the obstetrician, and assessed by the obstetric and midwifery team.

Centrally pink, responsive newborn:

If the newborn is centrally pink and responsive they will be transferred to the midwife, who will take the baby to the mother for immediate skin to skin care.

Newborn requiring further resuscitation:

If there are any concerns about the baby they will be transferred to the midwife for further assessment and resuscitation on the resuscitaire. Paediatric assistance may be requested at any point.

Once the baby is safe to commence skin to skin care the midwife will transfer the baby to the mother.

Weight and newborn check:

A formal weight and top-to-toe medical assessment will not be done prior to starting skin to skin care. These will be completed and documented by the midwife at a later time prior to discharge, as is done in a vaginal delivery.

Documentation
The following information will be documented on the HVDHB Skin to Skin Care Record by the midwife.

- Offer of skin to skin and decision
- Time from delivery to initiation of skin to skin
- Duration of uninterrupted skin to skin care

Anaesthesia
The anaesthetist and anaesthetic technician will facilitate skin to skin care by:

- Switching to the lower limb blood pressure cuff when they feel comfortable to do so
- Tilting the bed 30 degrees head up, provided there are no surgical contraindications.

Supervision of skin to skin care
The primary responsibility for supervision of skin to skin care will be the midwife. This will involve:

- Direct supervision of skin to skin care
- Assessment of the newborn and intervention as necessary
- Assisting with positioning for maternal and newborn comfort
- Assisting the mother with initiating breast feeding or expressing if appropriate

Importantly, it is a requirement of the BFHI policy document that woman be encouraged to look for signs their babies are ready to breastfeed during this first period of skin to skin contact, and be offered help breastfeeding if needed.[1]

Maternal and newborn welfare:
Any clinicians caring for the mother or the newborn may request for skin to skin care to be stopped if needed to ensure optimal care.

Emergency caesarean section under regional anaesthesia:
In an emergency caesarean section under regional anaesthesia selected parts of this protocol may be implemented at the discretion of the caring clinicians.

Elective caesarean section under general anaesthesia:
In an elective caesarean section under general anaesthesia (GA) skin to skin with the mother may be commenced once the mother is awake, responsive and haemodynamically stable in the post-operative care unit (PACU.)

If the partner wishes to do early skin to skin after a caesarean section under GA, this can be done in PACU. This will require:

- Pre-operative discussion and acknowledgement during the surgical Time Out
- Clearance with PACU coordinator pre-operatively
- The midwife will need to accompany the partner and newborn to PACU to supervise skin to skin care
- PACU staff will not routinely be available to supervise until the mother arrives from the operating theatre

Post-operative

Transfer

During transfer of the mother from the operating theatre table to her ward bed skin to skin care will be paused briefly to facilitate safe transfer of the mother and newborn. The midwife will hold the newborn during this time. The newborn will be returned to mother after transfer and skin to skin maintained during transfer from the operating theatre to PACU. This brief interruption is allowed under the BFHI guidelines and does not constitute termination of skin to skin care.[1]

PACU Care

All routine assessment and monitoring of the mother will be done whilst maintaining skin to skin if safe to do so.

Monitoring

Monitoring will be positioned as it is in the operating theatre post-delivery to facilitate easy skin to skin care for the mother. Primarily this will mean an oxygen saturation probe placed on the toe, and a NIBP cuff placed on the ankle.

If there are specific concerns about maternal blood pressure an upper limb NIBP cuff may be preferred by the anaesthetist or the PACU nurse.

Exceptions

There may be situations where skin to skin care is stopped in PACU to assist in providing optimal medical care to the mother. This will be at the discretion of the caring clinicians, particularly the PACU nurse.

Paediatric involvement in elective caesarean sections:

The obstetric registrar will inform the paediatric team of the case list in the morning. This will be confirmed at the list briefing. For each case, the need for paediatrics to attend the delivery will be confirmed at the Surgical ‘Time Out.’

Care of the newborn will be routinely provided by the midwife. The requirement for the paediatric team to be present at delivery will be considered on a case by case basis, based on the experience of the team and maternal/neonatal factors. Paediatric assistance may be requested at any point.

Appendix:

Rationale for specific measures

Antenatal discussion of skin to skin care

Lack of antenatal discussion about skin to skin care has been identified as a barrier to initiation of skin to skin care in the operating theatre.[4] Discussion prepares women for the possibility of an operative delivery, empowers women to expect and ask for skin to skin care in the operating theatre, and informs partners/support persons of the option for them to provide skin to skin care. Documentation of this allows theatre staff to easily confirm those discussions have been had on the day of surgery.

Addition of skin to skin plan in the surgical 'Time Out'

Staff knowledge regarding the BFHI requirements to provide skin to skin care within five minutes post-delivery can be a barrier.[4] Including a skin to skin plan during the 'Time Out' will increase staff awareness and is when most members of the theatre team are present.

Monitoring and Intravenous Access

Positioning of maternal monitoring has been shown to be a barrier to skin to skin care[4] and simple changes to positioning of monitoring has been shown to improve maternal satisfaction.[5]

The major goal of changing positioning of monitoring is to free the mothers' arms and central chest from monitors/cabling to allow easier skin to skin care. Regarding NIBP measurements this approach should be used:

- Upper limb cuff placed pre-spinal
- After spinal/epidural a second cuff with lead attached will be placed on an ankle
- Upper limb cuff will be used until delivery
- After delivery, once haemodynamic stability is confirmed, the lead may be switched at the anaesthetic machine to use the lower limb cuff

The upper limb cuff should be used until delivery as there is a large body of data correlating upper limb NIBP measurement and fetal outcome. The advantage of using an ankle cuff post delivery is that ankle NIBP measurement is more reliable with less movement artefact, has improved patient tolerance, and frees up the mother's arm to assist with skin to skin care.[5]

It important to note that the variation between upper limb and lower limb blood pressure is lowest for mean arterial pressure[5] (MAP) and this should be used over systolic blood pressure (SBP.) Whilst there is still concern that variation may exist between MAP measurements at the extreme high and low values we feel the advantages of lower limb measurement outweigh this risk once the baby is delivered and uterine perfusion is less of a concern.

A consequence of using ankle NIBP measurement is that calf SCDs cannot be used as easily. In HVDHB this is easily overcome by using foot compression devices. If these are not available some centres have used a unilateral SCD[5] or alternatively an

SCD placed over top of the NIBP cuff has been shown to not alter NIBP measurement.[3]

Immediate skin to skin for healthy newborns
With the routine implementation of delayed cord clamping in elective caesarean sections, an additional benefit is that this allows both a period of observation and an opportunity to dry and stimulate the newborn. A newborn that completes this period centrally pink and responsive was felt to be very low risk of needing further resuscitation. In any case, they will continue to be observed directly by the midwife during immediate skin to skin care and if the midwife has any concerns immediate assessment and further resuscitation can be initiated.

This was felt to be a safe approach in elective caesarean sections under regional anaesthesia as the absolute risk of iatrogenic respiratory distress syndromes in elective caesarean sections at 39 weeks gestation is very low, quoted at 0.4% in some studies.[6] In any emergency caesarean section, or caesarean section under general anaesthesia, or where there are specific concerns regarding the newborn, assessment and resuscitation should be commenced at the paediatric resuscitaire.

Delaying weight and top-to-toe assessment
In practice, it is difficult to initiate skin to skin care within the five-minute window required by the BFHI guidelines if these tasks are done first. There was felt to be no additional benefit to the mother or the newborn in conducting these assessments prior to initiation of skin to skin care. This mirrors the care received for mothers having a vaginal delivery, where these tasks are done at a later time.

Documentation of skin to skin
Documentation allows easy auditing and reporting of key outcomes. This is important to evaluate the efficacy of this policy and any subsequent changes in the future. It is also a reporting requirement with the Ministry of Health. Specifically, the DHB needs to show that "in at least 80% of cases [caesarean sections without general anaesthesia], babies are with their mothers, in skin-to-skin contact, immediately or within five minutes of birth, for at least 60 minutes."[1]

Direct supervision of skin to skin care
Anecdotally it was felt that one of the earliest reasons to cease skin to skin care in the operating theatre was maternal discomfort. Direct supervision from the woman's midwife ensures that an expert is available to assist the woman immediately should this occur. It also allows assistance with initiating breast feeding and ensures constant assessment of the newborn.

Transfer
Previously skin to skin was interrupted for transfer of the mother to her ward bed, and restarted only once the mother had been assessed in PACU. Realistically this results in an interruption of at least five minutes, and should constitute stopping skin to skin care.

Returning the newborn to the mother in the operating theatre after transfer ensures only a brief interruption of skin to skin care and is allowed under BFHI guidelines.[1]

The mother and newborn can be safely transferred from the operating theatre to PACU in a hospital bed.

References

1. Baby Friendly Aotearoa New Zealand, WHO/UNICEF. May 2014. BFHI Documents Part 2
2. Maternal Quality Care Committee. November 2009. Skin to Skin Following Birth Policy. Document ID MATY067
3. Parikh BR, et al. Influence of intermittent pneumatic compression devices on non-invasive blood pressure measurement of the ankle. Journal of Clinical Monitoring and Computing 2007; 21: 381–6.
4. Stevens J, et al. A juxtaposition of birth and surgery: Providing skin-to-skin contact in the operating theatre and recovery. Midwifery 2016, 37, 41–48.
5. Drake MJP, Hill JS. Observational study comparing non-invasive blood pressure measurement at the arm and ankle during caesarean section. Anaesthesia 2013, 68, 461–466
6. Minkoff H, Chervenak F. Elective Primary Caesarean Delivery. New England Journal of Medicine 2003, 348;10

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).