The How to Guide:

WHA CEC Perineal Protection Bundle©

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WOMEN'S HEALTHCARE AUSTRALASIA

NSW GOVERNMENT

CLINICAL EXCELLENCE COMMISSION

Celebrating Success
WHA National Collaborative

473 fewer women sustained a third or fourth degree perineal tear during childbirth as a result of this collaborative.

In 2018, 28 maternity hospitals from across Australia worked together to reduce the numbers of women experiencing perineal harm during the birth of their baby. To evaluate if the Collaborative improved the lives of women, data was collected for women who birthed in the 28 participating units during the intervention period. This was compared with the pre-intervention period.

Decrease in third and fourth degree tears achieved as a result of the WHA National Collaborative:

Overall
13.43%
Fewer tears

Spontaneous vaginal birth:
11%
Fewer tears

Instrumental assisted birth:
18%
Fewer tears

First spontaneous vaginal births:

For women having their first vaginal birth there were
12%
Fewer tears

When Instrumental assistance was required - using forceps and an episiotomy was performed
24%
Fewer tears

When instrumental assistance was required - using ventouse when an episiotomy was performed
16%
Fewer tears

Contents

How to use this Guide

Important Points when using the WHA CEC Perineal Protection Bundle©

- The Bundle is not mandatory, but it is important to consistently offer all elements of the Bundle to all women having a vaginal birth when clinically appropriate
- Women should be given information about the Bundle during pregnancy as well as being asked for consent during labour and birth for each element of care relevant to them
- Education of clinicians in the necessary skills to reliably offer each element of care is key to success
- Teams in birth suite may need to redesign their local clinical processes to allow the relevant components of the Bundle to be reliably offered to every woman giving birth vaginally

The guide describes the five components that form the WHA CEC Perineal Protection Bundle© that, when implemented together, have been shown to reduce third and fourth degree perineal tears. Further details of the improvement approach, methodology and results of the WHA National Collaborative are available at https://women.wcha.asn.au/collaborative

This guide is intended for use by all midwives and obstetricians at services with an interest in redesigning their clinical system to reduce rates of third and fourth degree tears for women giving birth vaginally. The term 'clinician' is used which refers to both midwives and obstetricians irrespective of the level of experience.
This guide provides information on how to perform all components of the Perineal Protection Bundle© and implement the Bundle reliably for all women being cared for at your maternity service. The effectiveness of implementation of the Bundle in reducing perineal tears is dependent upon:

1) An educational programme to ensure all clinicians have the skills to perform all components of the Bundle
2) Services redesigning their local clinical processes to allow the individual components of the Bundle to be reliably offered to every woman giving birth vaginally
3) The effectiveness of local change leaders[1, 2]

Early engagement with women about the Perineal Protection Bundle©, ideally, in the antenatal period at 32-36 weeks, allows for consideration of individual risk factors. This provides women with the opportunity to make informed choices about their birth care and if they wish to provide consent for each element of the Perineal Protection Bundle©. This approach can serve to improve women's lives by minimising the risk of potentially avoidable harm. Included in this guide are recommendations on communicating with the woman about the elements of the Bundle and suggested documentation related to the Bundle.

Local education on how to safely deliver each component of the Perineal Protection Bundle© is essential to its success. Services who participated in the Collaborative designed local educational strategies, which were shared amongst participating hospitals. Education focused on increasing clinical expertise related to all elements and to increase reliability of implementation. Leaders within each service are responsible for ensuring that staff are provided with sufficient training to enable them to carry out all elements safely and effectively.

This effectiveness of the Perineal Protection Bundle© in services which participated in the Collaborative was dependant on services re-designing their clinical processes to allow the individual components of the Bundle to be offered to every woman every time when applicable to the woman's needs. Difference in the processes and the local demographic of women means that services must redesign their system in a way that allows for the specific needs of the woman and local service design to be adapted at each site. Implementing the Bundle without redesigning the clinical processes or implementing only one or two elements of the Bundle in isolation from the other elements, is unlikely to improve the outcomes for women[3].

"Every system is perfectly designed to deliver the results that it gets"
Dr. Paul Batalden

Stories from women affected by third and fourth degree perineal tears*

More than 6,000 women having a baby in Australia each year experience a third or fourth degree tear. For some women this harm changes their life. It is important that we strive to minimise this harm.

"Three months after my daughter's birth I had a dentist appointment. I remember parking the car, going up the escalator into the shopping centre where the dental rooms were. I was walking along when I felt something run down my legs. I quickly ran to the toilet, thinking perhaps I had gotten my period. But I was horrified to see that I had become incontinent."

"It's almost like trying to do it for the first time... and I'm almost in tears because I'm so scared. He's so patient but he does go, 'maybe tonight we can try' and I'm like 'sure'. I was so anxious about it - I made myself sick. I get migraines and I gave myself a massive migraine- the worst and I was vomiting. How classy is that? I'm like this because I'm thinking I want to have sex".

"I... part of me thought '[my best friend] will judge me if I tell her that I'm pooing my pants'. Not that I think she would've thought any less of me, I'm sure there would have been sympathy, but I thought it was disgusting so I didn't want anybody else to judge me for that...'

WHA would like to thank researcher, midwife and consumer Holly Priddis for these stories from women affected by third or fourth degree tears as well as the women who shared their experiences with Holly for her research.

*See[4] Priddis, H. S. (2015). Autoethnography and severe perineal trauma - an unexpected journey from disembodiment to embodiment. BMC Women's Health, 15(88). doi:10.1186/s12905-015-0249-3; see also[5] Priddis H, Dahlen H, Schmied V. Women's experiences following severe perineal trauma: a meta-ethnographic synthesis. J Adv Nurs. 2013;69:48–759.

Engaging with Women about Perineal Tears

Women should be involved in discussion about all aspects of care that are available to them throughout their pregnancy, labour and birth[6]. Services who implement the Perineal Protection Bundle© should ensure that all women giving birth in their maternity unit are aware of the Perineal Protection Bundle©, understand how this may influence their care and give informed consent to each part of the care Bundle.

- Identify any potential risk factors
- Outline how the Bundle will influence their care
- Answer any questions they may have
- Seek and document informed consent

An information leaflet for women was created to provide women with information about their risk of a perineal tear and what strategies would be offered to reduce their risk of a severe tear. The information was prepared by a consumer working group with medical and midwifery input. The information then underwent five rounds of testing. In total 100 women received this in formation sheet and provided feedback on its design.

Sites that participated in the Collaborative identified that women were receptive to receiving the information sheet between 32-36 weeks, and that ideally a discussion was held in addition to providing written information. The clinician should explain the Perineal Protection Bundle© and respond to any questions or concerns the woman may have. Copies of this leaflet may also be displayed and available at services frequented by prenatal women including ultrasound departments, antenatal clinics and consultant waiting rooms.

This information leaflet is available at: https://women.wcha.asn.au/Collaborative/engaging-women

Services are welcome to use the information leaflet, as long as Women's Healthcare Australasia is acknowledged as the source and no element of the Bundle is omitted.

Important Points

- Women should be asked for their consent for all elements of care in the Perineal Protection Bundle©
- Services should provide written information about perineal tears to women during pregnancy and encourage women to ask questions and discuss concerns
- Clinical judgement and local policies also need to be considered in the care of individual women

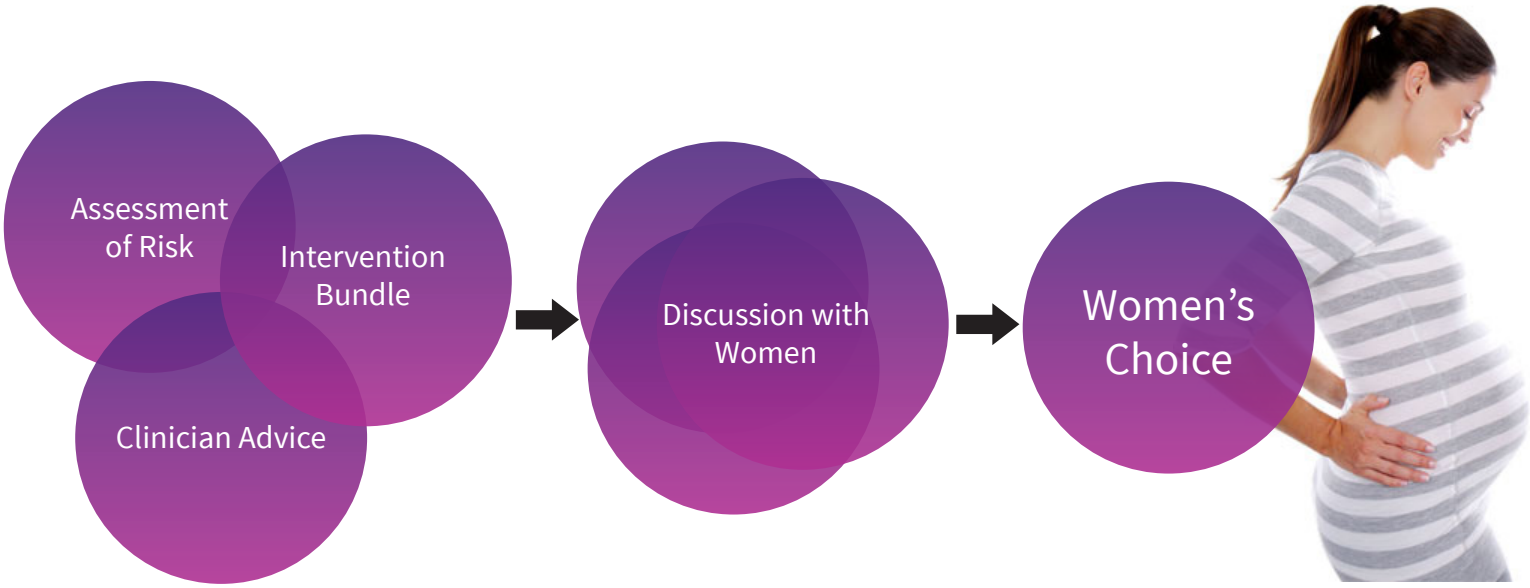
Technical advice

Women have the legal right to refuse any investigation or treatment.
For a woman's consent to be valid she must have received sufficient information to make an informed decision. Information should be provided about[7];

- The condition, and any proposed treatments
- The benefits of the proposed treatment or assessment
- Possible adverse effects or complications
- The potential effect if treatment is not undertaken

Generally, the law does not require consent to be documented in writing[7].

Providing information in the antenatal period can ensure women have the information required to give consent, as conditions in labour, particularly in the case of fetal distress may make seeking informed consent difficult. Even if consent has been obtained for an intervention in the antenatal period, an indication of ongoing consent should be obtained at the time of the intervention. It is also important that women are able to withdraw consent at any time, and that this is respected. Health services should ensure all clinicians are adequately trained to seek informed consent[7].



"Having this information before birth is so important. I didn't even know I could tear but this helped me a lot"

Consumer
VIC

Overleaf: two page consumer information leaflet for women

This information leaflet was designed by women with input from clinicians, and was tested with more than 100 pregnant women at 5 hospitals.

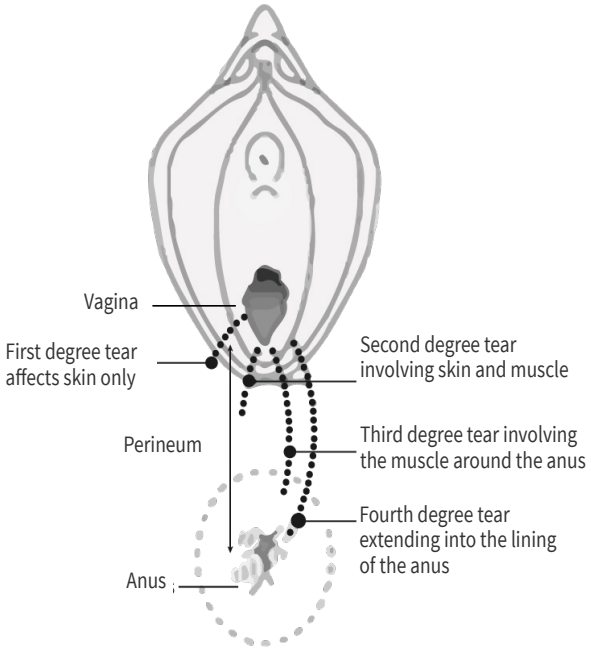
REDUCING THIRD AND FOURTH DEGREE PERINEAL TEARS

What are perineal tears?

- Perineal tears affect the skin and muscles of your perineum, between your vagina and anus.
- First and second degree tears are quite common and usually heal without difficulty.
- These tears may need stitches and follow up with your local doctor.

What are third and fourth degree tears?

- Third degree tears go through the muscles that control the anus (back passage).
- Fourth degree tears extend into the lining of the anus or rectum. Third and fourth degree tears usually require repair in an operating theatre.



Could this happen to me?

Approximately 4 out of every 100 women having a vaginal birth experience a third or fourth degree tear.

Your chance of a third or fourth degree tear is increased if:

- this is your first baby
- you are of Southeast Asian background
- you have previously had a third or fourth degree perineal tear
- your baby weighs more than 4kg (9lb) or is in a position with their back against your back (posterior)
- your baby's shoulders become stuck during birth
- you require forceps or other instruments to assist your birth.

For some women a third or fourth degree tear can result in a loss of bowel control. Lasting effects can be minimised with accurate diagnosis and appropriate management and follow up.

Please speak to your midwife or obstetrician if you have questions about this information

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Outlined below are the care elements in the Perineal Protection Bundle© which when implemented together have been demonstrated to reduce rates of third and fourth degree perineal tears*.

What does this mean for my care?

The following care elements have been demonstrated to reduce third and fourth degree perineal tears and should be offered to all women having vaginal births:

You may decline any care element if you choose

- Application of a warm washcloth (compress) to your perineum when your baby's head is crowning. This helps the muscles in your perineum stretch naturally.
- Encouraging you to move during your labour and to adopt birthing positions, during the second stage of your labour (when your baby's head is emerging) that will help your baby to be born slowly and not in a rush (e. g. on hands and knees).
- Helping you to have a slow, controlled birth through breathing techniques, and without directed pushing.
- Using hands to gently support your perineum during the birth of your baby's head and shoulders.

For births that require instrumental assistance

- Sometimes instruments, such as forceps or a vacuum (ventouse) are needed to assist with the birth of your baby. Forceps and ventouse are instruments that enable your obstetrician to pull, in time with your contractions, to assist with the birth of your baby.
- Which instrument is used depends on how your birth is progressing and the position your baby is in. These instruments can help the mother and baby achieve a safe vaginal birth.
- If this is your first birth and you require assistance by forceps or ventouse we will recommend an episiotomy. An episiotomy is a cut made with scissors at the entrance to your vagina into the perineum.
- An episiotomy can help to reduce third and fourth degree perineal tears.
- We will ask for your permission and pain relief will be provided before we perform an episiotomy.

How will I know if I have a third or fourth degree perineal tear?

After the birth of your baby we will examine your perineal and anal area to see if you have a perineal tear. To ensure a tear is not missed we recommend a rectal examination for all women.

This examination can detect internal tears, and ensures we are able to offer appropriate treatment and follow up.

We will ask for your consent before we conduct this examination, and you can withdraw your consent for the examination at any time.

What happens if I get a third or fourth degree tear?

The tear will need to be repaired, usually in an operating theatre. Your baby will be looked after by your partner, a family member or a midwife. Support will be provided to them.

You should be provided with pain relief and information on what you can do to help the tear heal.

An appointment will be made to see a health professional after you go home. Follow up with an experienced women's health physiotherapist is also recommended. If you need to use an interpreter please call the Telephone Interpreter Service on 131 450.

*Information on the WHA National Collaborative is available at https://women.wcha.asn.au/collaborative

Care Elements of the WHA CEC Perineal Protection Bundle©

Care Element 1 - Warm compresses

Apply a warm perineal compress during the second stage of labour at the commencement of perineal stretching.

Care Element 2 - Encouraging a slow controlled birth

With a spontaneous vaginal delivery, using gentle verbal guidance, to encourage a slow controlled birth of the fetal head and shoulders:

1. Support the perineum with the dominant hand holding the warm compress
2. Apply counter-pressure on the fetal head with the non-dominant hand
3. If the shoulders do not deliver spontaneously, apply gentle traction to release the anterior shoulder
4. Allow the posterior shoulder to be released following the curve of Carus

NOTE: Warm compresses and a hands on technique can not be applied during water births

Care Element 3 - Technique when performing an episiotomy

When an episiotomy is indicated an episiotomy should be performed:

1. At crowning of the fetal head
2. Using a medio-lateral incision
3. At a minimum 60 degree angle from the fourchette

NOTE: Due to the increased risk of third or fourth degree perineal tears when a woman having her first vaginal birth requires the assistance of forceps or vacuum, an episiotomy should be offered.

Care Element 4 - Assessing for perineal tears

For all women, genito-anal examination following birth needs to be offered, and where informed consent is given:

1. Be performed by an experienced clinician
2. Include a PR examination for all women, including those with an intact perineum

Care Element 5 - Grading severity of perineal tears

All perineal trauma should be:

1. Graded according to the RCOG grading guideline
2. Reviewed respectfully by a second experienced clinician to confirm the diagnosis & grading

*In response to consumer and clinician feedback, in consultation with the Collaborative Expert Panel, some of the wording related to bundle elements 2 & 4 have been updated to more clearly describe the intent of the care bundle elements, following the Collaborative intervention period.

Dispelling Myths Associated with The Perineal Protection Bundle©

MYTH

Women are not being asked for their consent to the Perineal Protection Bundle© of care.

FACT

All women offered the Perineal Protection Bundle© during the Collaborative were provided with information about the Bundle during pregnancy and asked for consent. Consent was documented. 598 women out of 18,245 (3.5%) did not consent to one or more elements of the Bundle.

MYTH

Episiotomies are being performed on all women.

FACT

The Bundle recommends the use of an episiotomy only for women having their first vaginal birth, WHO REQUIRE instrumental assistance with forceps or ventouse. This group of women experieced the largest reduction in rates of tears.

Women are being offered *a bundle of care to reduce their risk of harmful perineal tears*

MYTH

The Perineal Protection Bundle© requires women to lie on their back to give birth

FACT

Women can give birth in any position they choose. Perineal support and warm compresses as the baby's head is crowning can be provided in most positions including lateral (lying on your side), all fours (hands and knees) or semi-recumbent positions. Women choosing to give birth in water do not require a warm compress to be used.

MYTH

There is no evidence for doing a rectal examination on all women

FACT

Although rare, the consequences of missing a tear of the internal sphincter warrants offering women this exam. During the Collaborative, 5 button hole tears were identified in women with an intact perineum. Without the PR exam, these women would not have received timely diagnosis and treatment, and could have experienced lifelong adverse outcomes.

Design of the Collaborative

About the Perineal Protection Bundles©

The US Institute for Healthcare Improvement (IHI) developed the concept of a Bundle to describe a collection of interventions needed to reliably deliver the best possible care and safety for patients[3]. A Bundle brings changes together into a package of interventions that must be followed for every patient every single time[3,8]. Interventions Bundles are effective in ensuring evidence based practices are consistently performed by all staff within a clinical service[3]. Monitoring compliance with each component of the Bundle enables individual unit to assess the impact of the intervention Bundle within their unit and drive improvements in these processes accordingly. Patients should be informed of the care Bundles and given the opportunity to provide consent prior to the care being provided.

The aim of each participating team was to ensure that they designed a system that would allow them to use the Perineal Protection Bundle© in the care of 95% of women when clinically appropriate, to reduce the rate of perineal tears by 20% by the 31st of December 2018. For 5% of pregnant women there were acceptable clinical reasons why the Bundle could not be fully used (e.g. lack of consent by the woman).

Clinician autonomy

The Bundle is also compatible with clinician discretion and does not replace reasonable clinical judgement. If additional evidence emerges which outlines addition strategies that have been demonstrated to reduce perineal tears consideration should be given for adapting clinical practice. The care elements in the Perineal Protection Bundle© should be implemented with consideration of local policies and procedures related to, but not limited to:

- Operative vaginal births
- Maternal position
- Informed consent
- Communication
- Episiotomy
- Perineal assessment, and
- Management of tears

Important Points

- The elements of care in the Perineal Protection Bundle© are evidence based and are currently in practice in Australia
- The Perineal Protection Bundle© aims to improve the reliability of this care being offered to women

Risk Factors

Clinicians must be aware of the risk factors for sustaining a third or fourth degree perineal tear (outlined below). However, it should also be remembered that even without these specific risk factors, a woman may sustain a perineal tear and therefore the Perineal Protection Bundle© should still be offered.

Risk factor for third and fourth degree perineal tears[9,10]:

Antenatal Risk Factors:

- Nulliparous
- Southeast Asian origin
- Posterior fourchette to mid-anus <2.5cm
- Previous 3rd and 4th degree perineal tear

Intrapartum Risk Factors:

- This baby in OP position at birth
- Birthweight estimated >4kgs
- Shoulder dystocia at birth

WHA CEC Perineal Protection Bundle©
Care Elements

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Components of the Perineal Protection Bundle©

Care Element 1

Perineal Protection Bundle©

Warm compresses

Warm compresses applied during the second stage of labour reduce the risk of third and fourth degree tears and intrapartum perineal pain[11,12].
To reduce a woman's risk of a tear, a warm compress between 38-44 degrees centigrade[13]. should be offered to all women at the commencement of perineal stretching, except for women having a water birth.

Warm compresses can be used for women having an instrumental birth. However, this may not be feasible when the instrument needs to be applied prior to the perineum stretching. Many women do however enjoy the use of the warm compress prior to the perineum stretching even though this is not a specific requirement of the Perineal Protection Bundle.

Warm compresses and a hands on technique can not be applied during a water birth. The use of warm compresses should not be a reason to restrict access to water births or require a women to get out of the water. If a woman is assessed as being at high risk of a tear due to the presence of known risk factors and/or clinical assessment of the speed of presentation of the baby it may be appropriate to recommend a position to slow the birth of the fetal head and allow perineal support.

Important Points

- Warm compresses should be offered to all women who consent
- Local processes for reliably delivering a warm compress at the right time and the right temperature should be developed and tested.
- Equipment and water should be available in all birthing rooms.
- The application of a warm compress should not be a reason to stop water birth.

Technical Guidance

For all women

Apply warm perineal compresses during the second stage of labour at the commencement of perineal stretching.

- A warm compress can be applied in most birthing positions and should not be used as a reason to restrict movement or position.
- Women should be encouraged to mobilise freely during labour and to choose their preferred position for birth.
- In preparation for the second stage, water of an appropriate temperature and the necessary equipment should be available to enable a warm compress to be offered to all birthing women at stretching of the perineum.
- Designing a consistent method for obtaining water and applying a perineal compress at a temperature of 38-44 degrees centigrade[13] is required to maintain that temperature at the perineum at all times.

Communication

Provision of information about the benefits of warm compresses reducing perineal tears should be provided. It is important to warn the woman about the risk of overheating and ask her to report any discomfort. If a women requests to remove the warm compress at any stage her preference should be followed. It is reasonable to suggest reapplying a warm compress at a later stage with the consent of the labouring woman. The amount of time the compress was in place and any reasons for removal should be documented in the patient notes.

Learning from the Collaborative

The challenge of teams to reliably source water at the correct temperature and maintain the recommended temperature of the warm compresses, required teams to adopt innovative approaches. Approaches taken included:

- Testing of water temperature in all taps in birthing areas - the temperature frequently varied from tap to tap depending on the local environment.
- Retention of the temperature of the perineal pad at the perineum required units to use different heat retaining storage vessels. This was particularly relevant for units where the sink and tap were not available in the birthing room. The teams discovered that using the recommended 'standard' water jug with a mix of 300mls of hot and 300mls of cold water did not necessarily reliably deliver the appropriate water temperature at the perineum consistently and for long enough.

Additional considerations included:

- Methods for cleaning and sterilising water storage vessels that meet infection control standards. Many teams used disposable liners to mitigate against this issue.
- Ensuring that the necessary equipment was available in all birthing rooms
- Development of a consistent definition of perineal stretching and timing of application, particularly when considering instrumental assisted births.
- Education of staff on the techniques, evidence and rational for application of a warm compress in different positions, including during instrumental births, as this helps in early adoption.

Important Technical Points to Remember:

1. For safety prior to application, test the water temperature in the same way a baby's bath water is checked.
2. Check the colour of the skin after application for signs of excessive heat.
3. Warn the woman about the risk of overheating and ask her to report any discomfort.
4. If a woman requests to remove the warm compress at any stage their preferences should be followed.
5. It is acceptable to use warm compresses in the presence of an epidural providing due care is taken to the assessment of the heat of the warm compress prior to its application. This is because the woman may not be able to necessarily discriminate the temperature[9].

"I loved when we had the consumer come and speak at the Collaborative Learning Session. I wish every person that worked in obstetrics (midwives and doctors) could have heard that."

Midwife, Mercy Health, VIC

Care Element 2

Perineal Protection Bundle©
Encourage a slow controlled birth

Slowing the birth of the fetal head and shoulders at the time of crowning may reduce the risk of perineal trauma[1,14]. Perineal support should be used for all births to reduce rapid expulsive force and encourage birth to occur in a slow controlled manner [14,15,19]. Techniques to control the speed of birth can be performed in most birthing positions that the woman adopts.

Although access to the perineum is necessary for the achievement of perineal support at crowning, it should never be a reason to restrict a woman's movement during the second stage. The clinician may need to adjust their position in order to allow visualisation and support of the perineum. Perineal support can be provided in most positions including semi-recumbent, lateral and 'all fours' (hands and knees). There is no clear evidence that any particular position has a significantly protective effect on the perineum.

Important Points

- A woman's position should not be restricted (do not encourage supine positions to allow perineal support).
- Ask the woman for consent to support the perineum and baby's head.
- Position your hands to allow you to support the perineum and baby's head.
- During second stage encourage women to avoid a sudden expulsive push.

Technical Guidance

For all Women

1. When the baby is crowning encourage the woman to minimise active pushing using gentle verbal guidance.
2. Support of the perineum with the dominant hand holding the warm compress (*with the exception of women having a water birth).
3. Apply gentle counter pressure to the fetal head using the non-dominant hand (with the exception of women having a water birth). It is important for the clinician to evaluate the speed at which the head is progressing to allow the use of appropriate pressure i.e. to allow progress but prevent uncontrolled expulsion.
4. Once the head has been delivered, wait for restitution to occur.
5. Continue to support the perineum during the birth of the shoulders. In the event that the shoulders do not birth spontaneously, remove the dominant hand and apply gentle downward traction or as appropriate to the women's position e.g. on all fours traction is upwards, towards the accoucheur. If she is standing and you are in front of her, the traction is applied anterior or forward etc.
6. Allow the posterior shoulder to be released following the curve of Carus, protecting the perineum throughout this step.
7. Support is provided to the baby's body by moving both hands.

Communication

Gentle verbal guidance to encourage a slow controlled birth should be used when appropriate with consent of the women by encouraging women to slow their breathing and control their pushes on crowning of the fetal head. This allows the perineum to accommodate the gradual stretching caused by the head, thereby reducing the risk of tearing by uncontrolled expulsion.

If a woman has chosen a birthing position which restricts access to the perineum and the clinician has concerns about a woman's individual risk for a third or fourth degree tear (see risk factors on page 7) they may recommend that the woman adopts a position which allows for perineal support. Documentation of perineal support, position of the accoucher and the labouring women should occur.

With a spontaneous vaginal birth, using gentle verbal guidance, to encourage a slow controlled birth of the fetal head and shoulders:

a. **Support the perineum with the dominant hand holding the warm compress.**
b. **Apply counter-pressure on the fetal head with the non-dominant hand.**
c. **If shoulders do not deliver spontaneously, apply gentle traction to release the anterior shoulder.**
d. **Allow the posterior shoulder to be released following the curve of Carus.**

Learning from the Collaborative

Despite anticipated anxieties about the hands on approach, compliance with this intervention was high at the start of the Collaborative (92% compliance) and improved over time. Services who participated identified that there were differences in the current practice taught to midwives, who are taught a 'hands off' or 'hands poised' approach, in comparison to less recent teaching which participating sites advised historically involved a hands on approach. It is important to note that the hands on technique being recommended in the Bundle does not use the 'Finish grip', the ritgens manoeuvre, or pinching of the perineum.

Graduate midwives in the participating hospitals were trained by other midwives on their teams experienced in using the hands on approach. Feedback at all three Learning Sessions and at coaching sessions was that this was accepted with minimum or no resistance.

"What I have learned… is what strength we have as a team. In our unit the support that we have had from the midwives up and the executives down… everyone on board, every one motivated and committed and driven.

Midwife
West Gippsland Healthcare Group, VIC

Care Element 3

Perineal Protection Bundle©
Technique when performing an episiotomy

There is evidence that selective use of episiotomy reduces the risk of third and fourth degree tears during instrumental birth[16]. When an episiotomy is used it should be performed at a 60 degree angle on the woman's right as the baby's head is crowning. Due to stretching and distortion of the perineum during the second stage, an episiotomy performed at less than 60 degrees results in a episiotomy suture line closer to 45 degree angle, which has been shown to increase the risk of a third or fourth degree tear[6,17].

Due to the increased risk of third and fourth degree perineal tears[18], when a woman requires the assistance of forceps or vacuum, during her first vaginal birth an episiotomy should be offered[19]. This includes primiparous women and women having the first vaginal birth after a Caesaerean i.e. VBAC, who require instrumental assisted birth.

WHEN EPISIOTOMY IS INDICATED
Episiotomy should be performed:

a. at crowning of the fetal head
b. using a medio-lateral incision
c. at a minimum 60 degree angle from the fourchette

NOTE: Due to the increased risk of third or fourth degree perineal tears, when a woman having her first vaginal birth requires the assistance of forceps or vacuum, an episiotomy should be offered.

Important points

- clinicians need to be taught how to cut an episiotomy at 60 degrees.
- training of midwives and medical staff should occur
- measurement of angle of episiotomy is important
- episcissors can ensure a reliable angle is performed[15]

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- training of midwives and medical staff should occur
- measurement of angle of episiotomy is important
- episcissors can ensure a reliable angle is performed [15]

Technical Guidance

All midwives and obstetricians should have the performance of an episiotomy within their scope of practice. It is important to remember that 16% of women report severe pain levels during perineal procedures[20]. It is therefore important to ensure adequate pain relief prior to and during the procedure (e.g. lignocaine infiltration, nitrous gas inhalation, or epidural):

1. Explain the rational for performing the episiotomy and obtain the woman's informed consent
2. Ensure adequate analgesia and check that it is effective prior to procedure
3. Cut an episiotomy by starting at the fourchette and directing the incision away from the perineal midline at an angle of 60 degrees[6,19].

Tools should be used and training provided to facilitate achievement of the 60 degree angle. If available the use of scissors that indicate the correct angle can be used[21].

Episiotomy should only be considered after clinical assessment of the fetal and maternal risks for multiparous women and for primiparous women not requiring forceps or vacuum assisted deliveries.

Communication

Women should be provided with written information prior to labour about the protective role an episiotomy can play if they require instrumental assistance for their birth[6]. Providing balanced information about technique, benefits and risk of episiotomy prior to birth can ensure a woman is able to make an informed decision about her care.
An information leaflet for women was developed for the Collaborative. This information leaflet is available at: https://women.wcha.asn.au/Collaborative/engaging-women

At birth, it is important that the clinician discusses with the woman the reason why an episiotomy is being considered. For example, is the episiotomy being performed due to immediate concerns about fetal wellbeing or in an attempt to protect the perineum. As with any intervention, the woman should give her consent before an episiotomy is performed[6].
When an episiotomy is used, clinicians should ensure that they document the indications for episiotomy, the angle at which the episiotomy was performed, and the woman's agreement for the episiotomy to be performed[22].

Learning from the Collaborative

Baseline data collected during the Collaborative highlighted that the teams had a false understanding of their abilities when performing an episiotomy at the recommended 60 degrees angle from the posterior fourchette. The initial rate of 90% compliance captured this data issue, as teams at that stage were not measuring the angle of episiotomy or consistently using scissors to assist in cutting at this angle.

Participating sites developed a range of strategies to ensure the correct angle and timing of cutting an episiotomy, this included:

- Conducting educational programs for midwives and obstetric staff to ensure all staff had the confidence and ability to perform an episiotomy at the correct angle and were aware of the appropriate time to perform an episiotomy
- Development of local operational definitions on the indications for cutting an episiotomy.
- Measurement of post suture angle to establish if they had achieved a 60 degree post suture angle as recommended in the literature[23]
- 11 of the 28 participating sites purchased the 'Episcissor' device.
- Teaching how to have conversations with women in the antenatal period and at birth about the indications for episiotomy, techniques and potential role in preventing third and fourth degree tears.
- Development of documentation methods that included; indication, timing, angle of cutting an episiotomy.

The effectiveness of the episiotomy training programs and service redesign in participating services is evident given the 25% reduction in third and fourth degree tear rate in women who had an episiotomy for an instrumental assisted delivery. Women who did not have an episiotomy for a first vaginal birth if forceps were being used had a 42 out of 100 risk of having a third or fourth degree tear.

"One of the positives about this whole project was the multidiscipline approach…the fact that it involved medical staff and midwives, gave us a really good base to be able to access all of the different parts of our large service"

Midwife, Monash Health, VIC

Care Element 4

Perineal Protection Bundle©
Checking for perineal tears

Timely detection and appropriate repair is important to minimise the impact and complications of perineal tears[23]. Accurate diagnosis and effective care of perineal injuries requires systematic perineal assessment[6].

Following all births, a thorough examination of the perineum should be carried out by an experienced clinician. It is often difficult to determine if the internal anal sphincter is damaged. This assessment should include offering the woman a rectal examination as recommended by the National Institute for Healthcare Excellence (NICE)[6] and should be carried out with the woman's consent even when the perineum appears intact as visual examination alone often results in underestimation of the degree of trauma[24].

If a button hole tear is missed, or the extent of tearing of the internal sphincter is underestimated there is risk of the formation of a fistula between the anus and vagina, resulting in faecal incontinence[24].

Important Points

- Accurate diagnosis and timely repair can improve outcomes for women
- Offering all women a systematic perineal assessment including a PR examination is good clinical care
- Women should be asked for their consent, and may choose to decline a perineal assessment or PR examination

Technical Guidance

Caring communictation that is respectful of the woman's dignity is important. We recommended that a rectal examination is performed for all women using the following technique[24].

1. Insert the index finger into the anus and ask the woman to squeeze:
- The separated ends of a torn external anal sphincter will retract backwards and a distinct gap will be felt anteriorly.
- When regional analgesia affects muscle power, assess for gaps or inconsistencies in the muscle bulk of the sphincter by placing the index finger in the anal canal and the thumb in the vagina and palpate by performing a 'pill-rolling motion'

2. Assess the anterior rectal wall for overt or occult tears by palpating and gently stretching the rectal mucosa with the index finger

Any tears should be classified according to the Royal College of Obstetricians and Gynaecologists (RCOG) guideline[23] and documented in the client notes.

For all women, genito-anal examination following birth needs to be offered, and where informed consent is given:

a. Be performed by an experienced clinician

b. Include a PR examination on all women, including those with an intact perineum

Communication

The clinician should explain to the woman the reason why the examination is being offered and how it will be performed. The woman's consent should be obtained before any examination proceeds. The clinician should ensure that the woman is comfortable with adequate analgesia[17]. Consideration of the cultural needs of the woman and her right to privacy should be given. The woman's preferred support person should be present if she desires this, to provide support to her and her baby. Even when the woman has provided consent she may decline further examination at any point.

Learning from the Collaborative

Education was the key requirement for this element of the Bundle. Teams adopted innovative approaches including:

- Multidisciplinary teaching sessions.
- Supervised practice to upskill junior midwifery clinicians under the guidance of senior obstetric staff.
- Development or purchase of PR training models.
- The use of pig sphincters to allow clinicians time to examine in a non clinical setting.
- Teaching how to have conversations with women about the role of perineal assessment in reducing complications from perineal tears and seeking consent.

Concern was raised about the absence of data in the literature about the prevalence of perineal tears in women with an intact perineum, called rectal buttonhole tears. During the Collaborative five rectal buttonhole tears were identified in the intervention period when a rectal examination was performed on women with an intact perineum. Four of the five occurred during spontaneous vaginal births. The fifth occurred in a nulliparous women having a instrumental birth without an episiotomy. Concerns were also expressed as a result of a miscommunication in social media suggesting that consent was not being acquired prior to the examination. Acquiring consent was always a key requirement when the Perineal Protection Bundle© was used. A total of 518 out of 18,245 women (3%) declined a perineal assessment or PR examination during the Collaborative.

"This has been a really forward-thinking approach to how to implement change in a really big organisation that will be sustainable."

Obstetrician, Royal Hospital for Women, NSW

Care Element 5

Perineal Protection Bundle©
Grading severity of perineal tears

Perineal injuries sustained during childbirth are classified by the degree to which different structures of the perineum tear. It is important to accurately identify if the internal sphincter muscle is affected[25]. It is important that assessment and grading is performed by an experienced clinician trained in perineal assessment and alert to risk factors[23]. Research indicates that attending clinicians are often unable to detect perineal tears accurately and that having a second clinician assess the tear can increase the chance that a tear is accurately diagnosed[26, 27]. A second clinician should review any tear to confirm the diagnosis and the extent of the injury[23]. Refer to table 2 below regarding grading of tears.

Technical Guidance for all Women

All perineal trauma should be:

a. **Graded according to the Royal College of Obstectricians and Gynaecologists (RCOG) grading guideline**
b. **Reviewed respectfully by a second experienced clinician to confirm the diagnosis & grading**

- Where indicated repair should occur as soon as practicable after birth. Allow time for questions and the right to decline if that is her choice.
- Ensure adequate analgesia is still in place to ensure the woman's comfort[20].
- There should be consideration of the needs of the woman and support of uninterrupted skin-to-skin contact with her baby post birth balanced with the risk of infection and blood loss[6].
- Explain that, although it can seem invasive, having a second clinician review can help to ensure a tear is appropriately identified and effectively repaired.

Refer to local procedures regarding techniques for perineal repair. It is important that staff are trained in the diagnosis and repair of tears[6]. Tears should be graded according to internationally recognised RCOG grading guidelines[19].

Important Points

- Caring, respectful communication during assessment and repair is important
- The second experienced clinician does not need to be a doctor
- All third degree and fourth degree tears should be seen by a senior medical clinician

Consideration with regard to grading:

- For grading purposes an episiotomy should NOT be graded as a second degree perineal tear.
- Button hole tears, where the external sphincter is intact but there is damage to the internal sphincter, are not 4th degree tears by definition, so should be graded separately [24,28].
- Local data systems should separately record grade 3 a ,b, c tears and button hole tears.
- Any grade 3a, 3b, 3c or grade 4 tears should be escalated to a Senior Obstetrician or Midwife for review.

Follow up should be offered for any women assessed as experiencing a third or fourth degree tear[6,19]. Referral to a women's health physiotherapist may also be beneficial[29].

Communication

Support for the mother and caring communication throughout the assessment and repair and during follow up is very important[6]. Stories from women about poor communication highlight the importance of respectful supportive communication during assessment and repair[4,5,28]. Following perineal examination, a discussion with the woman of the findings of the examination and proposed treatment should occur. Women who experience a significant tear, can find the process of repairing the tear and managing its care difficult while caring for their newborn baby, and any other siblings[5]. Written information should be provided and an appropriate level of follow up arranged[19].

Table 2. Grading of perineal tears[19]

First-degree tear:	Injury to perineal skin and/or vaginal mucosa.
Second-degree tear:	Injury to perineum involving perineal muscles but not involving the anal sphincter.
Third-degree tear:	Injury to perineum involving the anal sphincter complex:
Grade 3a tear:	Less than 50% of external anal sphincter (EAS) thickness torn.
Grade 3b tear:	More than 50% of EAS thickness torn.
Grade 3c tear:	Both EAS and internal anal sphincter (IAS) torn.
Fourth-degree tear:	Injury to perineum involving the anal sphincter complex (EAS and IAS) and anorectal mucosa.

Learning from the Collaborative

This intervention required the presence of a second experienced clinician when a tear occurred. The teams needed to establish a reliable process that could ensure a second clinician review. The additional challenge for teams was ensuring an effective process also existed overnight when staffing levels were often lower. Teams were encouraged to establish a local consensus on the operational definition of the 'experienced clinician' e.g. is the most experienced clinician, the senior midwife rather than the junior medical officer for some categories of tears etc. In the context of the Collaborative if the first assessment was performed by a senior obstetrician, review by a second clinician was not required. Teams needed to develop a timely referral pathway to an experienced obstetrician in the event of a third or fourth degree tear so that the repair could be performed.

Additional factors:

- enhance clinical documentation to ensure accurate grading of tears include collection of 3a, b, c tears and rectal button hole tears. These were not previously a component of all databases prior to the Collaborative.
- educational programs to increase the number of obstetricians and midwives with skills and experience in the assessment and grading of perineal tears.

"When you bring the second clinician in to examine their perineum, women seem quite impressed, that we want to make sure that we're accurate when we are diagnosing a tear ."

Midwife, St George Hospital, NSW

Compliance with this intervention improved from a baseline of 80% compliance to a sustained increase of greater than 90%.

Perineal Protection Bundle©

Name:

MRN: Patient Sticker

DOB:

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Antenatal Risk factors:		
Nulliparous	Yes	No
Asian/ Indian ethnicity	Yes	No
Posterior fourchette to mid-anus < 2.5cm	Yes	No
Previous 3rd degree tear	Yes	No
Previous shoulder dystocia	Yes	No
Intrapartum Risk Factors		
This baby in OP position at delivery	Yes	No
Birthweight estimated at delivery > 4 kgs	Yes	No
Shoulder dystocia at delivery	Yes	No

Gravidity:	Parity:				
First vaginal birth inc previous C. Section				Yes	No
Mode of birth					
Spontaneous	Yes	No	Water birth	Yes	No
Episiotomy	Yes	No	Episiotomy with extension	Yes	No
Ventouse	Yes	No	Forceps	Yes	No
Induction of labour				Yes	No
Primip **active 2nd Stage > 2 hour**				Yes	No
Multip **active 2nd stage > 1 hour**				Yes	No
Labour analgesia Epidural				Yes	No

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1st- Skin only; 2nd- Perineal muscle but not anal sphincter; 3a – Less than 50% external sphincter; 3b – More than 50% external sphincter; 3c- internal sphincter torn; 4th - also involves the anorectal mucosa

Highest Classification of Tear (Tick one)	No Tear		1st Degree		2nd degree		3a degree		3b degree		3c degree		4th degree	

Intervention **EXCLUSION:** Any women whose mode of delivery is a Caesarean section

1	**FOR ALL WOMEN** **Apply warm perineal compresses during the second stage of labour at the commencement of perineal stretching.**	**Did you?**	**Yes** 1	**No** 0	Water birth is n/a 1	**Score**	
2	**With a spontaneous vaginal delivery, using gentle verbal guidance, to encourage a slow controlled birth of the fetal head and shoulders:**	**Did you?**	**Yes**	**No**	Instrumental delivery & water birth is n/a	**Score**	
	a support the perineum with the dominant hand		1	0	1		
	b apply counter-pressure on the fetal head with the non-dominant hand		1	0	1		
					Shoulder spontaneous & Instrumental delivery is n/a		
	c if shoulders do not deliver spontaneously, apply gentle traction to release the anterior shoulder		1	0	1		
	d allow the posterior shoulder to be released following the curve of Carus		1	0	1		
3	**WHEN EPISIOTOMY IS INDICATED** **Episiotomy should be performed:**	**Did you?**	**Yes**	**No**	n/a as no episiotomy performed	**Score**	
	a at crowning of the fetal head		1	0	1		
	b using a medio-lateral incision		1	0	1		
	c at a minimum 60 degree angle from the posterior fourchette		1	0	1		
4	**FOR ALL WOMEN** **Genito-anal examination following birth needs to:**	**Did you?**	**Yes**	**No**		**Score**	
	a should be performed by an experience clinician		1	0			
	b including offering a PR examination respectfully on all women, including those with an intact perineum		1	0			
5	**All perineal trauma should be**	**Did you?**	**Yes**	**No**	n/a as no perineal trauma	**Score**	
	a graded according to the RCOG grading guideline		1	0	1		
	b reviewed by a second experienced clinician to confirm the diagnosis & grading		1	0	1		

NB. An episiotomy is indicated for all women having their first vaginal birth requiring a forceps or ventouse assisted delivery

Date: _____ **Time:** _____ **Print Name:** _____ **Signature of accoucheur:** _____ **Designation:** _____

Date: _____ **Time:** _____ **Print Name:** _____ **Signature of 2nd clinician:** _____ **Designation:** _____

Total Score /12

Looking Forward

Women's Healthcare Australia (WHA) is committed to supporting member hospitals to improve the safety and quality of care provided to women and newborns.

WHA has commissioned a cloud based quality improvement service called Life QI to make it possible for member services to continue to share expertise and data about their improvement efforts. Member hospitals interested in improving care are invited to join WHA's Life QI portal and to share with peers their experience of using quality improvement methods to reduce rates of severe perineal tears and to sustain reduced rates over time.

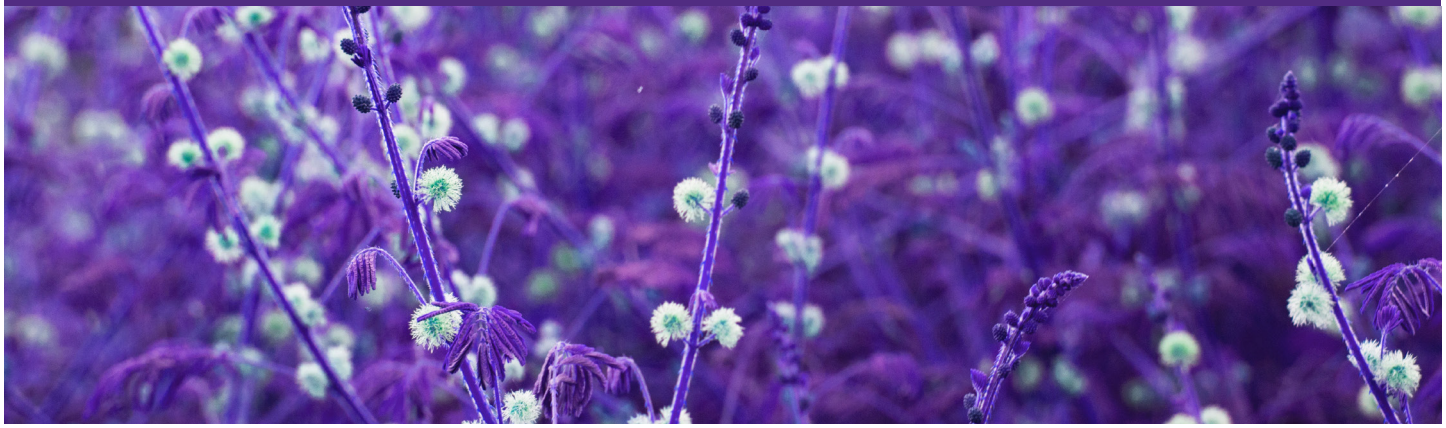
The skills and knowledge in quality improvement science gained by participating teams through the WHA National Collaborative are also very relevant to improving outcomes on other priority topics. WHA is keen to help clinical teams to continue using QI methodology to achieve sustained improvements in care and outcomes for women and newborns. WHA has invested in Life QI to support teams to continue to plan, monitor and report progress of their improvement projects, as well as connect with other members of the QI community.

An additional advantage of taking up our offer to collaborate on QI through WHA, is that once you have a license for Life QI you may also use the site to facilitate other improvement projects within your maternity, neonatal and women's health services. Recent conversations at WHA member forums have indicated there is interest in collaborating on a wide range of improvement priorities, for example on improving the reliability of evidence based decision-making regarding induction of labour booking processes or on reducing rates of postpartum hemorrhage (PPH).

If you are interested in viewing the Life QI site or would like to take WHA up on the offer to have a Life QI log in and collaborate with peer services through WHA please contact our Quality Improvement Coordinator, Adele Kelly on adele.kelly@wcha.asn.au

NSW Health organisations are able to access their local improvement platform through the CEC Quality Improvement Dashboard System (QIDS). Please contact: James Mackie, Medical Director - Patient Safety at: james.mackie@health.nsw.gov.au for further information.

More information on Life QI can be found here:
https://www.lifeqisystem.com/features/tools/



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