Repair of Perineal Trauma, Episiotomy including Management of 3rd and 4th Degree Tears (Obstetric Anal Sphincter Injuries OASIs) Guideline

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Summary of document:
The guideline aims to ensure appropriate and consistent management of third and fourth degree perineal tears. To guideline also aims to ensure appropriate follow up care as well as to ensure that

relevant information is given to women and birthing people who sustained a third or fourth degree perineal tear both after birth and in future pregnancies

Scope:
This guideline applies to women and birthing people who sustain a third or fourth degree perineal tear during childbirth and is to be adopted by both midwifery and obstetric clinicians.

From this point forward this guidance uses the term “woman” (pronouns she or her) to describe individuals whose sex assigned at birth was female, whether they identify as female, male or non-binary. It is important to acknowledge it is not only people who identify as women for whom it is necessary to access women’s health and reproductive services. Therefore, this should include people who do not identify themselves as women but who are pregnant or have recently given birth. Obstetric and midwifery services and delivery of care must therefore be appropriate, inclusive and sensitive to the needs of those individuals whose gender identify does not align with the sex that they were assigned at birth.

To be read in conjunction with:

Patient information:
RCOG leaflet on 3rd and 4th degree tears

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Management of third and fourth degree tears, Patient information, Postnatal Patient information, Subsequent pregnancies, Perineal trauma, OASIs

Glossary of terms
OASIS Obstetric Anal Sphincter Injuries
OP Occipito-posterior

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Scope

This guideline applies to women and birthing people who sustain a third or fourth degree perineal tear during childbirth and is to be adopted by both midwifery and obstetric clinicians.

Aim

The aim of this document is to:

- Support the identification of third and fourth degree perineal tears
- Support the appropriate management of third and fourth degree perineal tears
- Ensure consistent care is provided to women following a third or fourth degree perineal tear

Objectives

The aim of this document will be achieved by the following objectives:

- Correct identification of perineal trauma
- Correct repair of perineal trauma – specifically 3rd and 4th degree tears
- Correct information for women in the postnatal period
- Correct information for women in subsequent pregnancies

INTRODUCTION

- Midwives and obstetricians should examine all women after birth to assess level of perineal trauma.
- Where a third or fourth degree tear is suspected or is obvious women should be referred to a doctor experienced in anal sphincter repair or by a trainee under supervision.
- When assessing the perineum examination should be also be done to exclude ‘buttonholing’.

DEFINITION

GRADE OF TEAR	FEATURES
First degree	Injury to the perineal skin only
Second degree	Injury to the perineal muscles
Third degree • Grade 3a • Grade 3b • Grade 3c	Injury to the perineal muscles AND disruption to the anal sphincter muscles <50% thickness of EAS (external anal sphincter) torn >50% thickness of EAS torn IAS (internal anal sphincter) also torn
Fourth degree	Disruption of both the anal sphincters and rectal epithelium
Button Hole injury	A vaginal tear that breaches the anal mucosa but does not involve the muscles of the anal sphincters.
Labial injury	Injury to the labia

Potential risk factors for third and fourth degree tears.

- First vaginal birth (including vaginal birth after caesarean)
- Birth weight greater than 4kg
- Difficult vaginal birth (forceps, ventouse, shoulder dystocia, oxytocin augmentation)
- OP position, large HC, post maturity, compound presentation (Hand delivered alongside head).
- Prolonged second stage
- Instrumental birth (forceps without episiotomy has highest rate of OASI)
- Assisted birth
- Asian ethnicity
- Previous OASI
- Female genital mutilation (FGM)
- Short stature (research shows that short statue under 5f 2/ 158cm is a risk factor for pelvic floor trauma)
- Advancing maternal age

Perineal protection

The NICE Intrapartum care guideline found no difference between ‘hands poised’ and ‘hands on’ the perineum as prevention of third and fourth degree tears.

More recently there have been interventional studies using programmes which have successfully reduced OASIS rates, all of which have described manual perineal protection/‘hands on’ techniques
.

These include:
1. Left hand slowing down the delivery of the head.
2. Right hand protecting the perineum.
3. Mother NOT pushing when head is crowning (communicate).
4. Think about episiotomy (risk groups and correct angle).

- The best method of perineal support/protection is unclear.

- However, the positive effects of perineal support suggest that this should be promoted as opposed to 'hands off' or 'poised', in order to protect the perineum and reduce the incidence of third and fourth degree tears

- A Cochrane review has found the application of warm compresses during the second stage of labour to have a significant effect on reducing OASI

- A Cochrane review showed that perineal massage undertaken during the last month of pregnancy by the woman or her partner was associated with an overall reduction in the incidence of trauma requiring suturing.

Assessment

Systematic assessment including per rectum (PR) examination after every birth is vital to correctly diagnose trauma it is **essential** that the rationale for this examination is provided and informed consent is gained. Of those women suffering anal incontinence after childbirth, 50% were found to have an incorrect assessment and an OASI missed. Training in PR examinations is vital for correct diagnosis of OASI. The woman should be referred to a more experienced healthcare professional if uncertainty exists as to the nature or extent of the trauma sustained.

All relevant healthcare professionals should attend hands on training in perineal/genital assessment and repair and ensure that they maintain these skills.

Before assessing for genital / perineal trauma, healthcare professionals should:
- Explain to the woman what they plan to do and why.
- Offer analgesia.
- Ensure good lighting.
- Position the woman so that she is comfortable and so that the genital structures can be seen clearly (usually lithotomy if in hospital).

The timing of this systematic assessment should not interfere with mother– infant bonding unless there is bleeding that requires urgent attention.

The initial examination should be performed gently and with sensitivity and may be done in the immediate period following birth.

Systematic assessment with PR examination should be carried out following all vaginal births including women with apparently an intact perineum and should include:

- Further explanation of what is planned, why and consent obtained from the woman to continue.
- Confirmation by the woman that analgesia is adequate.
- Visual assessment of the trauma, the structures involved, the apex of the injury and assessment of bleeding.
- PR examination to assess whether there has been any damage to anal sphincters.

Seek advice from more experienced staff if there is an uncertainty about the nature or extent of the trauma.

Perineal repair

Difficult trauma should be repaired by an experienced operator in theatre under regional or general anaesthesia. It may be necessary to insert an indwelling catheter to prevent urinary retention.

- 1st degree tears do not need to be sutured if the skin is in alignment and there is no bleeding.
- 2nd degree trauma should be sutured in order to improve healing. If a woman chooses not to be sutured, evidence of information and advice given must be documented.
- Perineal trauma should be repaired using an aseptic technique and the perineum rinsed down with water prior to commencing repair. Gloves therefore much be changed after delivering the baby and performing a PR.
- Repair of the perineum should be undertaken as soon as possible to minimise the risk of infection and blood loss.
- Perineal repair should only be undertaken after effective analgesia is ensured either by infiltration With up to 20 ml of 1% lidocaine or topping up the epidural. If the woman reports inadequate pain relief at any point this should be addressed immediately. *note: 19% women reported a 'lot of pain' during suturing and 12% of women reported suturing as the most painful part of childbirth.*
- Good exposure and lighting is essential to see and identify the structures involved.
- An absorbable synthetic suture material (Vicryl Rapide) should be used to suture the perineum.
- identify the apex of the tear and use a surgical anchor knot to start 1cm above the apex of the tear.
- The vaginal wall and muscle layer should be repaired using a continuous nonlocked suturing technique and the dead-space deep intramuscularly closed to prevent bleeding and lower the risk of infection.
- If the skin is neatly opposed after suturing the muscle there is no need to suture it. Where the skin does require suturing, this should be undertaken using a continuous subcuticular technique.
- Always finish with a surgical knot, ideally not at the fourchette.
- Good anatomical alignment of the wound should be achieved, and consideration given to the cosmetic result.
- Rectal examination should be carried out after completing the repair to ensure that suture material has not been accidentally inserted through the rectal mucosa.

- Rectal non-steroidal anti-inflammatory drugs (e.g. Diclofenac 100 mg) should be offered routinely following perineal repair provided these drugs are not contraindicated. o Contraindications include postpartum haemorrhage, preeclampsia, renal disease, asthma, concurrent use of other NSAIDs.
- Information should be given to the woman about the extent of the trauma, pain relief, diet, pelvic floor and the importance of good hygiene.
- After completion of the repair accurately document on the All Wales Clinical Pathway for Normal Labour / Labour Documentation, with a drawing if needed, the following: consent, extent of the trauma, method of repair, type and number of sutures and swabs used. A second signature is required for the swab/needle count. Community midwives should visibly assess the perineum for signs of infection and wound breakdown with the woman's consent at each postnatal check-up. If any signs of infection are present, antibiotics should be prescribed via the GP and a swab taken. Research shows between 1:10-20 wounds breakdown. The wound will then heal by secondary intention which is a much longer and more painful process.

Episiotomy

Episiotomy should not be performed routinely but only where there are concerns for the fetal well-being or multiple maternal risk factors for OASI.

- if it is a woman's 1st vaginal delivery and she requires a forceps delivery then an episiotomy is recommended.
- most instrumental deliveries require an episiotomy.
- the hilt of the blade should be at the base of the fourchette. This means the episiotomy with commence just to the right of the fourchette.
- If an effective epidural anaesthetic is in place it should be topped up for birth with the woman upright to get best coverage of the perineal area or the perineum should be infiltrated with local anaesthetic.
- If a tear is imminent, an episiotomy may be necessary without local anaesthetic.
- A mediolateral episiotomy at 60^{O} angle is recommended to avoid an OASI.

Management of third and fourth degree tears

Once identified it should be repaired by a doctor with appropriate/relevant qualification in repairing third and fourth degree tears

FULL EXTENT OF THE INJURY SHOULD BE EVALUATED BY A CAREFUL VAGINAL AND RECTAL EXAMINATION IN LITHOTOMY POSITION IN THEATRE, UNDER SPINAL OR ADEQUATE LOCAL ANALGESIS AND THE TEAR SHOULD BE CLASSIFIED AS ABOVE

The Speciality Obstetric doctor should inform the Consultant when a woman has sustained a fourth degree tear. The Consultant can then make the decision regarding who should undertake the repair, and advise on the appropriate technique for repair

USE THE PERINEAL REPAIR PACK, WHICH HAS BEEN SPECIALLY PREPARED FOR THIS PURPOSE AND REPAIR SHEET

Principles of repair

- General or regional (spinal, epidural, caudal) anaesthesia is necessary
- The repair should be carried out in the operating theatre where there is access to good lighting.
- An assistant should be available.
- Consider short term indwelling catheter until mobility returns

Third and fourth degree tear repair sheet MUST be completed by the doctor undertaking repair (Appendix 2)

- The torn anorectal mucosa should be repaired with sutures using either the continuous or interrupted technique. Whichever technique is used, figure of eight sutures should be avoided during repair of the anal mucosa as they can cause ischaemia.
- Where the torn internal anal sphincter (IAS) can be identified, it is advisable to repair this separately with interrupted or mattress sutures without any attempt to overlap the IAS.
- For repair of a full thickness external anal sphincter (EAS) tear, either an overlapping or an end-to-end (approximation) method can be used with equivalent outcomes.
- For partial thickness (all 3a and some 3b) tears, an end-to-end technique should be used.
- When obstetric anal sphincter repairs are being performed, the burying of surgical knots beneath the superficial perineal muscles is recommended to minimise the risk of knot and suture migration to the skin

A rectovaginal examination should be performed to confirm complete repair and to ensure that all tampons or swabs have been removed. All swabs needles and instruments must be counted pre and post repair by two clinicians and this must be recorded on the 3rd/4th Degree tear Proforma. The insertion of any vaginal pack must be clearly recorded on the Proforma.

- Antibiotics should be prescribed for all women
- Prescription of laxatives following perineal repair has shown to reduce the risk of wound dehiscence
- Datix to be completed and number recorded in the birth register.

Choice of suture materials

- 3-0 polyglactin should be used to repair the anorectal mucosa as it may cause less irritation and discomfort than polydioxanone (PDS) sutures

- When repair of the EAS and/or IAS muscle is being performed, either monofilament sutures such as 3-0 PDS or modern braided sutures such as 2-0 polyglactin can be used with equivalent outcomes

Documentation

It is expected that every episode of care be recorded clearly, in chronological order and as contemporaneously as possible by all healthcare professionals. This is in a requirement as set by professional colleges including the NMC and RCOG. All entries must have the date and time together with signature and printed name.

Ensure adequate documentation by using the perineal repair page in the Labour Documentation Documentation should include:

- The extent of trauma (including a visual image where possible)
- Analgesia used for repair
- Material used
- Technique used
- Swab and needle count prior to and on completion of procedure
- Documentation of advice given.

Postnatal documentation
Postnatal documentation should include Completion of the Third / Fourth Degree Tear sticker (appendix 1) which should be included in the woman's postnatal notes

Alternatively, a handwritten management may be documented for perineal or labial repair.

Follow up care

- Receive written information on third and fourth degree tears (RCOG and Physiotherapy)
- Referred for an outpatient gynaecology follow up appointment, this appointment should ideally be face-to-face however consideration can be given to a virtual appointment if this is the woman's preference. Appointments should be made prior to discharge from hospital by emailing the following address and requesting an appointment
  OPDappointments.healthrecordspph@wales.nhs.uk
  Once the appointment request has been made this should be clearly documented and explained to the woman
- Referred to the women's health physiotherapy team. Please note there is a minor local variation for each of the sites depending on where the woman lives
  Pembrokeshire – Caroline.Mccoy@wales.nhs.uk
  Carmarthenshire – physioreferral.hdd@wales.nhs.uk
  Ceredigion – Leri.physio@wales.nhs.uk

Subsequent pregnancies

- The risk of sustaining a further third- or fourth-degree tear after a subsequent delivery is 5–7%

- Women identified in subsequent pregnancies should receive Information for women identified in pregnancy as having had a previous third or fourth degree tear (Appendix 2).
- Assessment should be made of any urinary or bowel symptoms that may contraindicate a vaginal birth i.e. Women who are symptomatic or have abnormal endoanal ultrasonography and/or manometry.
- All women who have sustained OASIS in a previous pregnancy and who are symptomatic should be counselled regarding the option of elective caesarean birth.
- If the woman is symptomatic, an elective caesarean section should be considered
- A previous third degree tear is not a contraindication to birth in the midwife led unit or at home. Women should be aware of the possibility of reoccurrence and that if there is a reoccurrence transfer to the obstetric unit would be required for repair.

The following may reduce the potential for a repeated third or fourth degree tear:

- Left lateral for birth
- Warm compress
- Non-directed pushing
- There is no evidence that prophylactic episiotomy prevents a recurrence of sphincter rupture.
- An episiotomy should only be performed if there are predisposing factors such as big baby, OP position, shoulder dystocia, fibrotic scarring and inelastic perineum.

Auditable Standards

- Compliance with completion of 3rd/4th Degree Tear Proforma
- Datix Incident Reporting of all 3rd/ 4th Degree Perineal tears in line with the Health Board Maternity Trigger list
- Compliance with follow up physio and gynae appointments

References

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- Royal College of Midwives 2012 Evidence Based Guidelines for Midwifery-Led
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- adjustment techniques for women with anal incontinence following obstetric
- Anal Sphincter Injury. BMC pregnancy and childbirth
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- Beckmann MM, Stock OM.(2013) Antenatal perineal massage for reducing perineal trauma. Cochrane Database Syst Rev (4):CD005123.

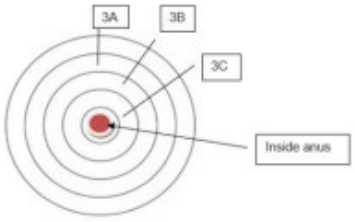
Appendix 1: Third and Fourth Degree Tear Sticker

Third / Fourth Degree Tears (please sign when action complete)	
Opportunity offered to woman in the immediate postnatal period	
Regular analgesia prescribed	
Bladder care – indwelling catheter in-situ until fully mobile	
Appointment for follow up in Gynae clinic in 6 weeks	
Referral to physiotherapy services complete	
RCOG Patient information leaflet provided	
Datix	

Appendix 2 - Third and fourth degree tear repair sheet

Addressograph		Date Time Anaesthesia Location	 Spinal/Epidural/Both GA Theatre Room
Parity	Nullip/Mutip	Position at birth	OP/OA/OT SP/SA/ST
Mode of delivery	SVD/Forceps/Ventouse/Both	IOL	Yes/No
Indication of instrumental		Birth weight (G)	
Length of 2nd stage	Hours Minutes	Episiotomy	Yes/No
Shoulder dystocia	Yes/No	Previous 3rd 4th degree tear	Yes/No

Type of tear 3a (<50% EAS) / 3b (>50% EAS) / 3c (EAS &IAS) / 4th (Anal mucosa involvement)



	Repair	**Suture material**
External anal sphincter	Overlap/other	3/0 PDS/Other
Internal anal sphincter	Interrupted/Other	3/0 PDS/Other
Anal mucosa	Interrupted/Other	3/0 Vicryl/Other (Knots in lumen)
Vaginal mucosa	Interrupted/Continuous/Other	2/0 Vicryl rapide/other
Perineal body	Interrupted/Other	2/0 Vicryl rapide/other
Perineum	Interrupted/Continuous/Other	2/0 Vicryl rapide/other

Following repair (Compulsory)

PV done	Yes	PR done	Yes
EBL	mls	Pack	Yes/No
Swabs used	number	Needles used	number

Datix completed YES/NO **Datix number**
Name Signature & Grade **Date** **TIME**

Postnatal management - Confirm prescribed on patient drug chart

	Drug	**Dose**	**Duration**	**Signature**
Antibiotics	Cefuroxime	1.5G IV	Stat	
	Metronidazole	500mg IV	Stat	
	Cephradine	500mg oral TDS	1 week	
	Metronidazole	400mg oral TDS	1 week	
Stool softeners	Lactulose	10ml oral	10 days	
	Fybogel	1 sachet bd	10 days	
Analgesics	Voltarol	50mg TDS oral	1 week	
	Paracetamol	1G QDS oral	1 week	

Woman informed of nature of tear – YES/NO
RCOG patient information third and fourth degree tear during birth leaflet given to woman – YES/NO
Prior to discharge

Bowels opened	YES/NO
Physio referral	YES/NO
Gynae OPD (6/52)	YES/NO

Name Signature & Grade **Date** **TIME**