Reference Number: UHBOBS098 **Version Number: 5**	**Date of Next Review: 04/01/2025** **Previous Trust/LHB Reference Number:**

Perineal Trauma

Objectives

The aim of this guideline is to provide up to date information on the most effective methods and materials for use in the repair of perineal trauma sustained during childbirth. This document also includes details of referral criteria to Physiotherapy and Perineal Trauma Clinic, the referral process and referral forms.

Scope

This policy applies to all healthcare professionals in all locations including those with honorary contracts

Equality Health Impact Assessment	*An Equality Health Impact Assessment (EHIA) has not been completed.*
Approved by	*Maternity Professional Forum*

Accountable Executive or Clinical Board Director	*Ruth Walker, Executive Nurse Director*
Author(s)	*Laura Merrett, Midwife,* *Pina Amin, Consultant Obstetrician and Gynaecologist,* *Anna Darbhamulla, Consultant Obstetrician and Gynaecologist*

Summary of reviews/amendments

Version Number	Date of Review Approved	Date Published	Summary of Amendments
1	Oct 2007	*Oct 2007*	
2	Sept 2010	Sept 2010	Reviewed and amended by Anne Morgans and Julia Sanders

3	July 2013	Sept 2013	Reviewed and amended by Laura Merrett and Pina Amin
4	Mar 2018	Mar 2018	Reviewed and amended by Laura Merrett, Pina Amin, Anna Darbhamulla
4a	March 2018	Oct 2020	Reformatted. Antenatal Clinic proforma for women with previous OASI added.
5	MAY 2022	JUN 2022	Section 3 updated and reformatted to include guidance in minimising the risk of severe perineal trauma (Laura Merrett) Updated section 4 to include repair of buttonhole tears (Anna Darbhamulla)

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2 Classification of Perineal Tears

Table 1 RCOG Classification of Perineal Tears (RCOG, 2007)

First degree	Injury to the perineal skin only
Second degree	Injury to perineum involving perineal muscles but not involving the anal sphincter
Third degree	Injury to perineum involving anal sphincter complex:
3a	<50% of EAS (External Anal Sphincter) thickness torn
3b	>50% of EAS thickness torn
3c	Both EAS and IAS (Internal Anal Sphincter) torn
Fourth degree	Injury to the perineum involving the anal sphincter complex (EAS and IAS) and anal epithelium

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3 Repair of first and second degree tears:

3.1 Background and rationale

Approximately 85% of women will experience some degree of perineal trauma following vaginal birth, 70% of which requires suturing.[1] Current evidence recommends the following measures to reduce the risk of severe perineal trauma.[2]

- Perineal massage from 35/40 (nulliparous women)
- Perineal protection at crowning (NB. not for waterbirth)
- Good communication with the woman to facilitate a S-L-O-W birth
- Ensure good visualisation of the perineum and evaluate for episiotomy if severe perineal trauma is anticipated
- Warm compress during late second stage
- Giving birth in an all fours, kneeling or lateral position

If there is any trauma to the perineal body, a rectovaginal examination using the 'pill-rolling' technique to exclude obstetric anal sphincter injury (OASI), is recommended, with verbal consent of the woman.[3] If it is not possible to adequately assess the trauma, or there is uncertainty about the nature or extent of the trauma, refer to a more experienced practitioner. Transfer to an obstetric-led unit should be considered. Third or fourth degree tears should always be referred to an obstetrician for suturing.[3]

Repair of the perineum should be undertaken within one hour following birth to minimise the risk of infection and blood loss.[3] Continuous suturing techniques for perineal closure, compared with interrupted methods, are associated with less short-term pain, need for analgesia and suture removal.[4]

All relevant healthcare professionals should attend training in perineal assessment and repair, and ensure that they maintain these skills.[5]

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3.2 Assessment and Repair of Perineal Trauma

3.2.1 Consent

Explain the nature of the procedure, including the rationale for rectal examination before and after suturing and use of lithotomy to undertake the repair. Gain the woman's consent and clearly document this in her records.

3.2.2 Equipment

- Suture pack
- Vaginal taped tampon (if required)
- Sterile Gloves x2 (change gloves following rectal examination)
- 10 ml syringe and green needle (or orange needle for labial infiltration)
- Lidocaine 1% (10-20mls)
- Suture material- absorbable synthetic suture material (such as Vicryl rapide 2/0 or equivalent) for perineal repair[5] or 3/0 for labial repair
- Good lighting
- Lithotomy if available

3.2.3 Procedure

- If regional analgesia has been used for the labour/ birth, topping up the epidural should be considered prior to perineal repair. Offer inhalational analgesia and ensure the woman is comfortable throughout the procedure.

- Position the woman in the lithotomy position (if possible) ensuring she is as comfortable as possible. Check swabs, needles and instruments with another healthcare professional prior to suturing and document in the woman's notes/ E3.

- Using aseptic technique and sterile gloves, prepare for suturing. Visualise and define the extent of the perineal trauma; identify all the landmarks and anatomy before you begin. If there is any trauma to the perineal body a rectal examination should be performed to exclude trauma to the anal sphincter using the 'pill-rolling' technique.[3] The sphincter should be palpated between the index finger (per rectum) and the thumb (at the fourchette) between 3 and 9 o'clock to ensure completeness of the anal sphincter. Change gloves following rectal examination.

- Suturing must be performed as cleanly as possible. Swab the vulva with plain tap water from top to bottom in a single motion, taking care not to contaminate the wound. Infiltrate the perineum with Lidocaine 1% (a midwife may prescribe and administer up to 20 mls Lidocaine 1%, to include any previously administered) into the perineal muscles and under the skin. Allow time for it to take effect (about 4 minutes).

- The first stitch is inserted approximately 1cm above the apex of the trauma in order to secure any bleeding points and tied using a surgeon's square knot.

- The vaginal wall is repaired using a loose continuous (non-locking) stitch, to ensure good haemostasis.[4,5] Each stitch should be made taking approximately ½ cm of tissue from each side of the wound edge, ensuring that the stitch reaches the trough

of the wound to avoid haematoma. Stitches that are too tight will impede blood flow and healing.

- Continue until the hymenal remnants (a fleshy ring of tissue, usually pink or bluish in appearance) are reached. The hymnal remnants are useful landmarks and should be brought together carefully. When the hymnal remnants are reached, insert an additional stitch to secure (no knot required), then insert the needle through the vaginal wall to emerge in the trough of the perineal muscle layer.

- Check that haemostasis has been achieved and there is good anatomical alignment.

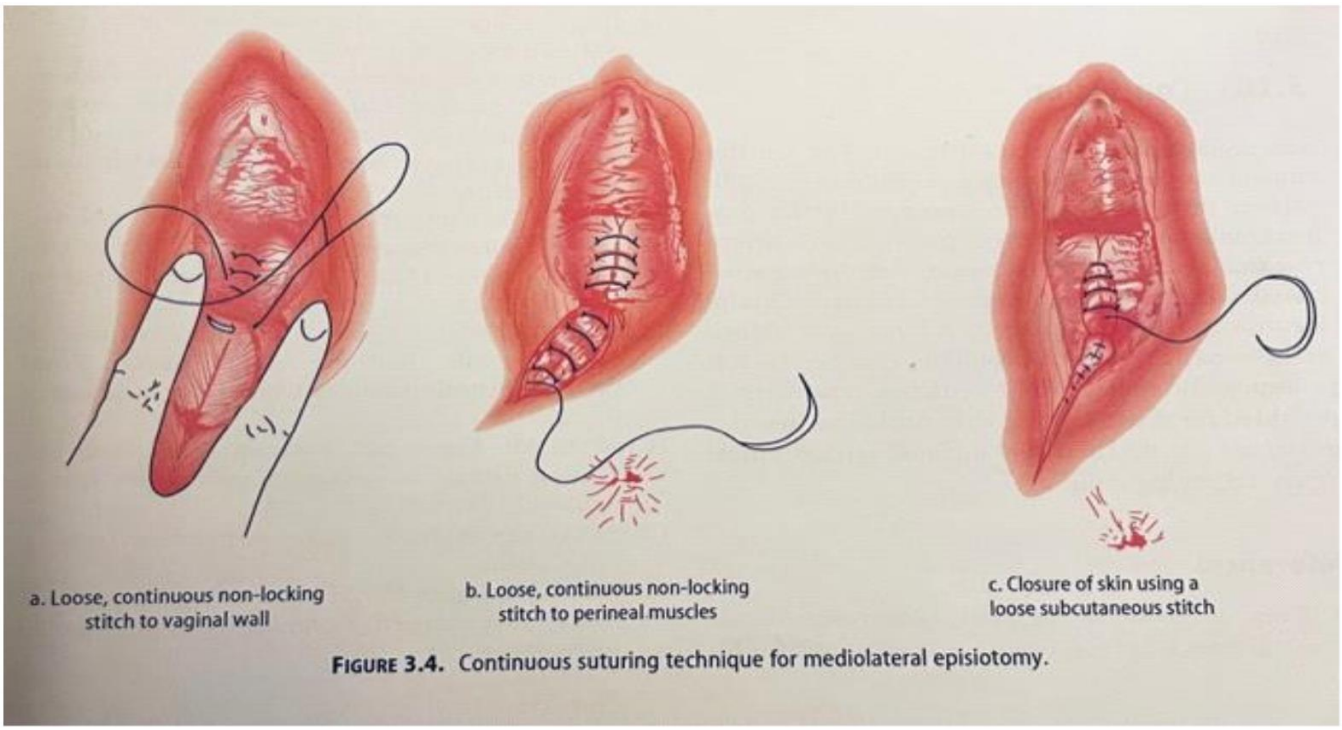

FIGURE 3.4. Continuous suturing technique for mediolateral episiotomy.

Source[3]: Sultan AH et al. (2009) 'Perineal and Anal Sphincter Trauma'

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3.2.4 Closure of the perineal muscles and skin

- Suture the perineal muscles using a loose continuous non-locking technique.[4,5] It is important to close off all the dead space to avoid the formation of a haematoma.

- Take bites on either side of the perineal muscle, taking care to match each stitch for depth as well as width. You may need to close this in two layers if very deep, so check the depth before you start.

- Once the muscle layer is closed and haemostasis achieved, the perineal skin should be sutured using a subcuticular method.[2] Inserting the next stitch directly opposite the previous one will avoid puckering of the skin edges. Stitches should be placed fairly deeply to avoid discomfort associated with the perfusion of nerve endings.

- Continue upwards to close the fourchette. Continue as far as the hymenal remnants, take one final suture over the wound to finish the suturing with an Aberdeen knot.

- When suturing is complete check alignment, remove the tampon (if used) and check haemostasis has been achieved.

- A digital rectal examination should be carried out to ensure that no sutures have penetrated the rectum (risk of recto-vaginal fistula). Non-steroidal anti-inflammatory drugs (eg. Diclofenac Sodium) should be offered routinely following perineal repair, provided these are not contraindicated.[6]

- The area should be cleaned from top to bottom and a sanitary pad placed over the vulva. Ensure the woman is comfortable. Check for uterine contractility and lochia. Count swabs, needles and instruments immediately after procedure[7] and document in the woman's notes and on E3. Information should be given to the woman regarding the extent of the trauma, pain relief, diet, hygiene and the importance of pelvic-floor exercises.[6]

- Complete records and suturing documentation, if possible pictorially.
  - Suturing section of the All Wales Labour Pathway
  - Suturing template CLU

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3.2.5 References

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[3] Sultan A.H, Thakar R. Third and Fourth Degree Tears. In: Sultan A.H., Thakar R, Fenner D.E. (editors) Perineal and Anal Sphincter Trauma. Springer; 2009

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[5] Royal College of Obstetricians and Gynaecologists. Methods and Materials used in Perineal Repair. Green-top Guideline 23. London. Royal College of Obstetricians and Gynaecologists; 2004 [Accessed on 12 Feb 2018]. Available from http://unmfm.pbworks.com/w/file/fetch/81069629/perineal_repair-RCOG.pdf

[6] National Institute of Clinical Excellence (NICE) Intrapartum Care for Healthy Women and Babies. Clinical guideline CG190 [accessed 12 Feb 2018] Available from https://www.nice.org.uk/guidance/cg190 Published: Dec 2014 Last updated: Feb 2017

[7] National Patient Safety Agency. Reducing the risk of retained swabs after vaginal birth and perineal suturing. 2010 [accessed 12 Feb 2018] Available from: http://www.nrls.npsa.nhs.uk/alerts/?entryid45=74113

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4 Management of third & fourth degree perineal tear[1]

4.1 Guidance for medical staff

The repair should be performed by a doctor experienced in Obstetric Anal Sphincter Injury repair (OASI) or by a trainee under supervision.

Perineal protection at crowning can protect the perineum**.**

The full extent of the injury should be evaluated by a careful vaginal and rectal examination in lithotomy position and the tear should be classified as above.

Use the perineal repair pack designed for OASI repair

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4.2 Suture material

Vicryl 3-0	(polyglactin) for anaorectal mucosa
PDS 3-0	(polydiaxalone) for anal sphincter
Vicryl 2-0	for perineal muscles and perineal body
Vicryl 3-0	for vaginal epithelium and perineal skin

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4.3 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.

4.4 Method of Repair

(only general principles are outlined)

- Interrupted or continuous sutures are used for the repair of **anal mucosa**.
- Internal and External anal sphincters are sutured separately
- Torn ends of internal anal sphincter are grasped with Allis forceps and repair carried out.
- 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.

- **Perineal skin** repair by subcuticular suture preferable as this technique is associated with less perineal pain, less wound gaping and does not require removal of sutures[3].
- Great care must be exercised in reconstructing the perineal muscles to provide support to the sphincter. Anal sphincter would be more vulnerable during subsequent vaginal delivery in the presence of a short deficient perineum.

A rectovaginal examination should be performed to confirm complete repair and to ensure that all tampons or swabs have been removed.

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4.5 Repair of rectal buttonhole tear

4.5.1 Surgeon

Repair by an appropriately trained clinician or by a trainee under supervision. As these injuries are so rare, a consultant should always be present.

If the obstetric consultant is not confident it should be performed jointly with a colorectal surgeon.

4.5.2 Colorectal opinion

Should always be sought for high rectal buttonhole tears (> 7 cm from the anal verge or if there is faecal soiling). A covering colostomy is rarely performed but may be considered in these scenarios. The risks and benefits of colostomy should be discussed with the patient.

4.5.3 Setting

Repair should take place in an operating theatre, under regional or general anaesthesia, with good lighting and appropriate instruments.

4.5.4 Examination

A systematic digital vaginal and rectal examination must be performed to exclude any additional injuries and in particular an OASI should be excluded

4.5.5 Prior to repair

The proximal and distal end of the rectal laceration must be clearly identifiable before suturing. The three layers for repair (rectal mucosa, rectovaginal fascia and vaginal skin) must be identified

4.5.6 General principle

Figure-of-eight sutures should be avoided because they are haemostatic in nature and may cause tissue ischaemia.

4.5.7 Repair of rectal mucosa

Using a transvaginal approach, a non-locking continuous 3–0 polyglactin suture, with knots on the vaginal side of the rectal tear.
Perform a rectal examination to confirm that good apposition of the mucosa is obtained.

4.5.8 Repair of rectovaginal fascia

Using an interrupted mattress technique using a 2–0 or 3–0 PDS sutures.

4.5.9 Repair of vaginal skin

Continuous non-locking 2–0 Vicryl sutures.

4.5.10 Following repair

A digital vaginal and rectal examinations should be performed to ensure complete closure of the tear.

4.5.11 Complex tears

If the distal end of the anorectal mucosal tear is not clearly identifiable, it will be the only indication to create a 4th-degree tear by cutting through the intact anal sphincters and anorectal mucosa to meet up with the distal end of the rectal buttonhole tear. Repair is then performed as described for a 4th-degree tear

4.5.12 Antibiotics

Intra-operative broad-spectrum intravenous antibiotics should be given and followed by oral antibiotics similar to 4th degree tear. See Hospital Microguide.

4.5.13 Laxatives

A stool softener, such as Lactulose, should be prescribed for at least 10 days.
Follow-up Arranged in 6 weeks or earlier if indicated.

4.6 Documentation

Details of injury, repair and post-operative management to be documented by the surgeon on OASI repair sheet (Appendix 5.1)

Details of tear to be entered on E3 by attending midwife

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4.7 Intra-operative and post-operative care

4.7.1 Antibiotics:

Intravenous antibiotics (see Hospital Microguide) should be commenced intraoperatively as a single dosage. Antibiotics should be continued orally for 7 days.

4.7.2 Analgesia:

Where there is no contra-indications, Diclofenac Sodium 100mg PR given, and regular post-op analgesia such as Paracetamol and Diclofenac prescribed.

A Foleys catheter should be inserted for 6-12 hours.

A stool softener such as lactulose (15ml twice a day) should be prescribed for at least two weeks postoperatively. Bulking agents should not be given routinely with laxatives. Please refer to the 3rd-4th degree proforma.

The woman must be given a detailed explanation of the extent of trauma prior to discharge and advised that if there is concern about infection or poor bowel control they should see their midwife or GP and be referred to hospital if appropriate. An eDAL should be completed with details of the tear and repair prior to discharge.

4.7.3 Follow-up

A follow-up appointment for 4th degree tears (6 weeks) and 3rd degree tears (8 - 12weeks) to be requested in perineal trauma clinic for review by Dr Darbhamulla's team.
Referral form (Appendix 5.3) and copy of OASI repair sheet to be sent to Gynaecology clinic co-ordinators by attending midwife.

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4.8 References

1. Joana C Roper, Ranee Thakar, Abdul H. Sultan. Isolated rectal buttonhole tears in obstetrics: case series and review of the literature. *International Urogynaecology Journal 2020*

2. National Institute of Clinical Excellence (NICE) (2017) *Intrapartum Care Clinical Guideline No.55* Available at: http://www.nice.org.uk

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11. Sleep J, grant A Garcia Elbourne D, spencer J, Chambers I (1984) west Berkshire perineal management trial. British Medical Journal 289:587-590

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Auditable Standards

1. All women with a 3rd or 4th degree tear will be referred to the perineal trauma clinic. Standard: 100%
2. All women referred to the perineal trauma clinic to be seen within 3 months of delivery. Standard: 95%
3. All women with a 3rd or 4th degree tear will have a physiotherapy review within 8 weeks of delivery. Standard: 95%

5 Appendices

5.1 Obstetric Anal Sphincter Injury Repair Sheet

Starts on next page.

ADDRESSOGRAPH

Date:

Time:

Anaesthesia: Local / Spinal / Epidural / Both / General

Location: Theatre / Equivalent or Delivery Room

Parity: Nullip / Multip	IOL: Yes / No
Mode of Delivery: SVD / Forceps / Ventouse / Both	Position at Delivery: OP/OA/OT
Indication (if instrumental):	Birthweight:
Length of Second Stage: hrs mins	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)/ Button hole tear (If in any doubt, classify higher)

	Repair:	**Suture Material:**
External Anal Sphincter (EAS)	Overlap / End to End / Other	3/0 PDS / Other
Internal Anal Sphincter (IAS)	Overlap / End to End/ Other	3/0 PDS / Other
Anal Mucosa	Interrupted / Continuous / Other	3/0 Vicryl / Other
Vaginal Mucosa	Interrupted / Continuous / Other	2/0 Vicryl rapide / Other
Perineal Body	Interrupted / Continuous / Other	2/0 Vicryl rapide / Other
Perineum	Interrupted / Subcuticular / Other	2/0 Vicryl rapide / Other

Following Repair:
PV Done Yes / No MBL: mls
PR Done Yes / No Vaginal Pack: Yes / No
Swabs & Needles check Yes / No Catheter Yes / No

Risk Management:
Woman informed of nature of tear Yes / No
Information Leaflet Given Yes / No

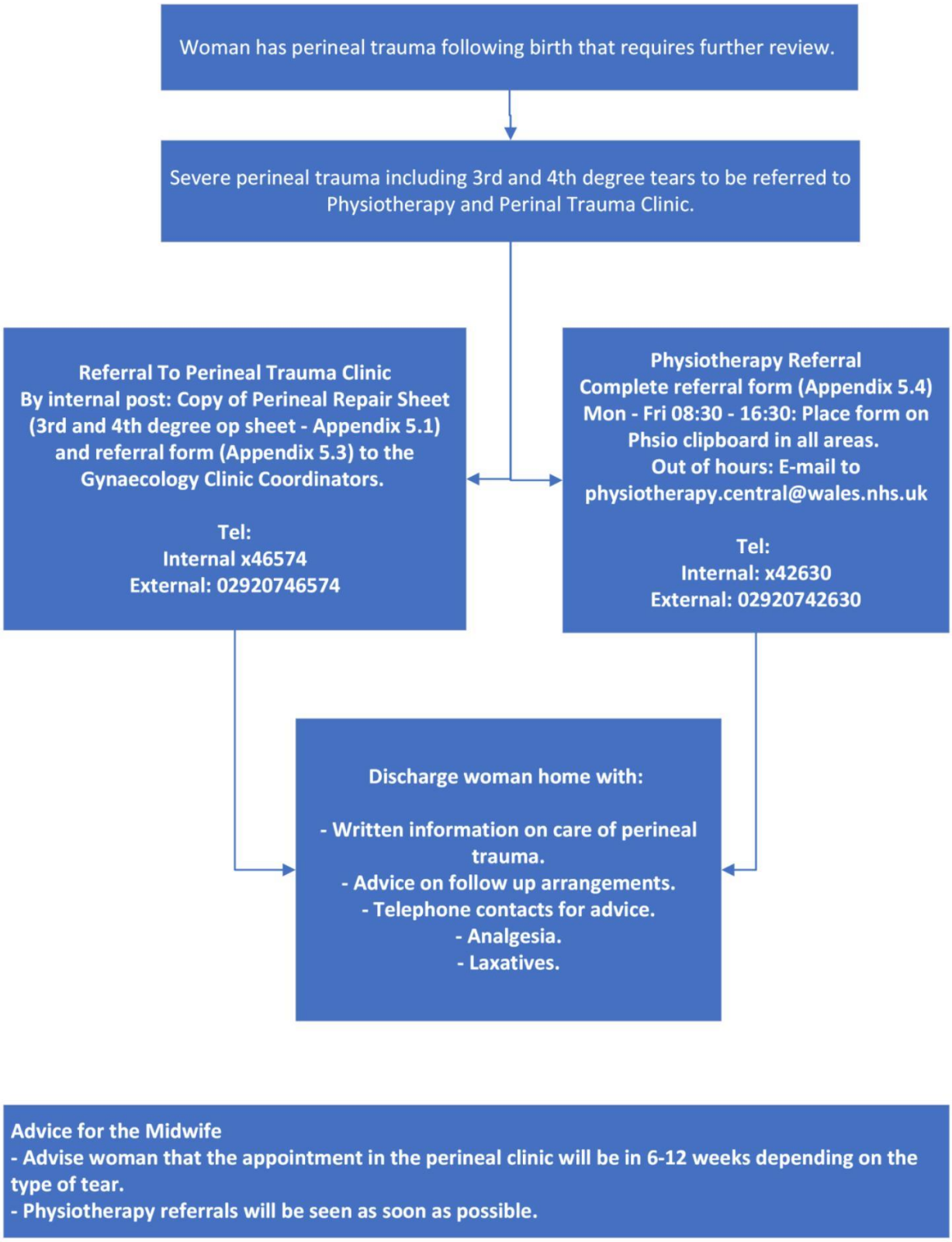
Postnatal Management: Prescribed / Arranged

Antibiotic Cover	Cefuroxime 1.5G IV & 500mg Metronidazole IV (at repair)	Yes / No
	Cefalexin 500mg TDS (1 week)	Yes / No
	Metronidazole 400mg TDS (1 week)	Yes / No
Stool Softener	Lactulose 10mls BD (10 days)	Yes / No
Analgesia	Diclofenac 50mg PO TDS (1 week) then PRN	Yes / No
	Paracetamol 1G PO orally QDS (1 week)	Yes / No

……Name, Signature, Grade

Bowels opened prior to discharge	Yes / No
Referred to Physiotherapy for pelvic floor exercises	Yes / No
Referred to Perineal trauma Clinic GYN 128	Yes / No

5.2 Referral process for follow up after severe perineal trauma



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5.3 Perineal Trauma Clinic Referral Form

Starts on Next Page.

Patient Addressograph

Referral Date: _____

Referred by: _____

Grade: _____

DETAILS OF PERINEAL TRAUMA

Date of Delivery: Parity:

Mode of Delivery: ☐ SVD entouse ☐ Forceps

Type of Tear: ☐ 3A ☐ 3B ☐ 3C ☐ 4th

If other, please provide details:

Postpartum symptoms if any:

FOLLOW UP REQUESTED – Please circle as applicable

Urgent **Routine**

Please note that a routine follow up will be arranged in clinic at 6 weeks after 4th degree tear and 8-12 weeks after 3rd degree tear.

Request urgent appointment if review needed within 6 weeks

Women requiring immediate attention for possible re-suturing should be referred to the OAU

Please forward this referral form along with a copy of OASI/perineal repair sheet to Gynaecology clinic co-ordinators office (located opposite ANC reception) by internal post or

fax 46754 /02920746574

OR

Email Dr Anna Darbhamulla: annapurna.darbhamulla2@wales.nhs.uk

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5.4 Pelvic Health Physiotherapy Referral Form

Any forms incorrectly or incompletely filled out will be returned

Hospital Number:
Patient Name:
Patient Address:
Post Code:
Contact Number:
DOB:
GP:
Interpreter required? Y N Language:
Hospital Transport required? Y N
Gestation (if appropriate):
EDD or Date delivered:
Gravida:
Para:

Please select main reason for referral and then give details below:

- ☐ MSK ie:Low Back Pain/Pelvic Girdle Pain/Carpel Tunnel Syndrome/DRAM
- ☐ Pelvic Floor Dysfunction ie: Incontinence/prolapse
- ☐ Perineal wound breakdown or haematoma
- ☐ 3rd / 4th degree perineal tear

Further details:

Referrers Name:
Referral date:
Contact number:

- ☐ Midwife
- ☐ Obstetrician
- ☐ Health visitor
- ☐ GP

Please email referral forms to Physiotherapy.Central@wales.nhs.uk.

Physiotherapy queries should call **Physiotherapy Central office at CRI on 02920 335717** and ask to speak to/leave a message for the pelvic health team and someone will get back to you soon as they are able.

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5.5 Cardiff and Vale UHB Postnatal 3rd and 4th degree tear pathway

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5.6 Perineal Wound Dehiscence Pathway