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### **Guidelines Definition**

Clinical guidelines are systemically developed statements that assist clinicians and patients in making decisions about appropriate treatments for specific conditions.

They allow deviation from a prescribed pathway according to the individual circumstances and where reasons can be clearly demonstrated and documented.

### **Minor Amendments**

If a minor change is required to the document, which does not require a full review please identify the change below and update the version number.

<b>Type of change</b>	<b>Why change made</b>	<b>Page number</b>	<b>Date of change</b>	<b>Version 1 to 1.1</b>	<b>Name of responsible person</b>
New guideline for CTMUHB	Amalgamation of POW and CTUHB	all	31.03.2020	1	LW Forum

### **Equality Impact Assessment Statement**

This Procedure has been subject to a full equality assessment and no impact has been identified.

	<b>Management of Third and Fourth Degree Perineal Repairs Guideline</b>	<b>Page</b>
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## 1. Introduction

Obstetric anal sphincter injuries (OASI) are caused by perineal trauma during vaginal delivery. Also referred to as third- and fourth-degree perineal tears, these injuries involve the anal sphincter complex and, in more severe cases, anal mucosa. OASI is a leading risk factor for subsequent loss of bowel control (flatus and/or faeces) in women, affecting quality of life.

## 2. Definition and Classification of Perineal Tears

- **First degree tear** – injury to skin only
- **Second degree** – injury to the perineal muscles but not the anal sphincter
- **Third degree** – injury to the perineum involving the anal sphincter complex:
  - **3a** – less than 50% of external anal sphincter (EAS) thickness torn
  - **3b** – more than 50% of EAS thickness torn
  - **3c** – both EAS and internal anal sphincter (IAS) torn.
- **Fourth degree** – injury to the perineum involving the anal sphincter complex (EAS and IAS) and anorectal mucosa.
- **Rectal buttonhole tear** – if the tear involves the rectal mucosa with an intact anal sphincter complex, it is by definition not a fourth degree tear. This has to be documented as a rectal buttonhole tear. If unrecognised this type of tear may lead to a rectovaginal fistula.

## 3. Risk Factors for Third and Fourth Degree Perineal Tears

- Asian ethnicity

- Nulliparity
- Birthweight greater than 4 kg
- Shoulder dystocia
- Occipito-posterior positions
- Duration of second stage of labour more than 2 hours (risk increases with time)
- Instrumental births
- Previous OASI

Clinicians need to be aware that although there are known risk factors these do not allow the accurate prediction of OASI.

This position adopted for birth should be documented in the maternity notes. This should include evidence of manual perineal protection (MPP) being applied or not.

#### **4. Incidence of Obstetric Anal Sphincter Injuries**

National rates of 6% for Primigravida and 2% for Multigravida (RCOG/RCM 2020).

All women should be informed antenatally (32-36 weeks) about OASI and what steps can be taken to minimise her risk.

Women should be given a copy of **OASI Care Bundle information leaflet**

#### **5. Prevention of Obstetric Anal Sphincter Injuries**

- Manual perineal protection (MPP) at crowning can be protective.

- MPP should not limit the woman's position, however if the position restricts visualisation of the perineum and the ability to use MPP, then the clinician should communicate with the woman that it may increase her risk of sustaining an OASI.
- Clinicians should explain to women that the evidence for the protective effect of episiotomy is conflicting.

*N.B. However, there is evidence that a mediolateral episiotomy should be performed with instrumental term births for nulliparous women as it appears to have a protective effect on OASI. However, in multiparous women, an episiotomy should be used for all term forceps births, but may occasionally be omitted with a ventouse/kiwi birth after considering and discussing the women's risk of sustaining an OASI.*

*N.B. Where episiotomy is indicated, the mediolateral technique is recommended, with **CAREFUL ATTENTION** to ensure that the angle is 60 degrees away from the midline when the perineum is distended. This has been shown to be important in reducing the incidence of OASI.*

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.

Recently there have been interventional studies using programmes which have successfully reduced OASI rates, all of which have described manual perineal protection/'hands on' techniques. These include:

1. One hand to cup the head and to **control the speed and progress** of the presenting part.
  2. The other hand **supports the perineum** using the thumb and forefinger on the lower part of the labia, firm pressure is used while flexing (curling in) the remaining 3 fingers and pushing them against the perineum.
  3. As the face becomes visible use the middle finger of the perineal support hand to **assist with the birth of the chin** over the introitus.
  4. Encourage the mum to refrain from pushing and **breathe the baby out slowly** (communicate).
  5. Wait for restitution to occur, (still supporting the perineum) and encourage the mum to **push gently to birth the shoulders**.
  6. Continue MPP throughout the birth of the shoulders by **moving your non-dominant hand** to support the baby's body. Applying gentle axial traction until both shoulders are born.
  7. **Clear documentation** of the use of manual perineal protection
- The Key Principles being:-**Coaching** the mum to avoid sudden expulsive pushing
  - Maintaining **gradual progress** during birth of the head
  - **No undue downward traction** during delivery of the shoulders
  - **Support the perineum** throughout the whole birth
- Warm compression applied to the perineum during the second stage of labour significantly reduces the risk of an OASI. Your healthcare professional can gently place a warm compress (pad, swab or gauze) on the perineum as the baby's head stretches the perineal tissues.

## 6. Perineal Assessment

All women having a vaginal birth are at risk of sustaining OASI or isolated rectal buttonhole tears. **All women** should therefore be examined systematically, including a digital rectal examination, to assess the severity of damage, particularly **prior** to suturing. Before assessing for genital / perineal trauma, 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

The examination should be performed in the immediate period following birth. If the perineum is found to be intact a buttonhole could present. Therefore **all** women should have a rectal examination **prior** to suturing even if it appears there is no trauma. The woman should be in the lithotomy position to allow adequate visual assessment of the degree of the trauma for the repair itself.

This assessment of the perineum should include:

- Visual assessment of extent of perineal trauma including the structures involved, apex of injury and amount of bleeding
- A digital rectal examination to assess whether there has been any damage to the external anal sphincter (EAS) or internal anal sphincter (IAS) using a 'pill-rolling technique'.

On completion of the suturing of any perineal tear a digital rectal examination should again be performed to confirm no sutures were placed through the anorectal canal.

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.

When the external sphincter is torn, the ends of the muscle fibres of the sphincter tend to retract under the skin. Failure to recognise the extent of the trauma and to achieve complete repair can lead to long term sequelae such as faecal incontinence and recto-vaginal fistula.

Tissue is often oedematous and bleeding immediately post-delivery making identification of muscle and repair difficult. Temporary placement of a tampon and flushing with warm water can help visualisation. Partial damage to the anal sphincter can have as much impact on future continence as complete disruption.

## **7. Repair of Obstetric Anal Sphincter Injuries**

### **7.1 General principles**

Repair of third- and fourth-degree tears should be conducted by an appropriately trained clinician or by a trainee under supervision.

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

If there is excessive bleeding, a vaginal pack should be inserted and the woman should be taken to the theatre as soon as possible. All women should have a band in place on the woman's wrist to alert the team of a planned object left in place. Once the object is removed in theatre please remove the band. If the woman leaves theatre with a planned object in situ a new band should be applied.

As in any circumstance where mother and baby are separated soon after birth, skin to skin contact should be encouraged between baby and father, if this is possible, until mother and baby skin contact can be resumed.

Repair of OASI in the delivery room may be performed only in certain circumstances after discussion with a senior obstetrician (NICE 2015).

Figure of eight sutures should be avoided during the repair of OASIS because they are haemostatic in nature and may cause tissue ischaemia.

If a suture is identified in the anorectal canal on digital rectal examination after the repair it should be removed.

See Appendix A for the OASI Repair Form.

## **7.2 Antibiotic Cover**

Prior to commencement of suturing at least one dose of intravenous broad spectrum antibiotics should be administered. See appendix C for current CTMUHB Antimicrobial Guidelines.

## **7.3 Repair of anorectal mucosa**

The torn anorectal mucosa should be repaired with sutures using either the **continuous** or **interrupted** technique. The knot can be either placed caudally in the anorectal canal or cranially facing the perineal muscles. **3-0 polyglactin** (Vicryl) should be used to repair the anorectal mucosa.

The use of polydioxanone (PDS) sutures for repair of the anorectal mucosa should be avoided as they take longer to dissolve and may cause discomfort in the anal canal.

## **7.4 Repair of Internal Anal Sphincter**

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. Either monofilament sutures such as **3-0 polydioxanone** (PDS) or braided sutures such as **2-0 polyglactin** (Vicryl) can be used with equivalent outcomes.

### **7.5 Repair of External Anal Sphincter**

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.

Either monofilament sutures such as **3-0 polydioxanone** (PDS) or modern braided sutures such as **2-0 polyglactin** (Vicryl) can be used with equivalent outcomes.

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.

Complete a referral form for:-

- A postnatal follow-up in OASI clinic
- Physiotherapy

## **8. Postoperative management**

The woman should be given a full explanation of:-

- The nature of the injury
- The repair performed
- Post-operative management: hygiene, laxatives, antibiotics and analgesia
- Postnatal management: hygiene, physiotherapy and follow-up appointments

The RCOG patient information leaflet should be given prior to discharge.

Pain control: Regular oral analgesia, avoid opiates e.g. codeine or oral morphine

Following an epidural top up/ spinal, observations must be carried out according to CTMUHB Epidural guidelines.

The use of broad-spectrum antibiotics is recommended following repair of OASI to reduce the risk of postoperative infections and wound dehiscence. In the absence of allergies the recommended regime for antibiotics should be given in line with CTMUHB Obstetrics and Gynaecology antibiotic guideline. See Appendix C for current CTMUHB Antimicrobial Guidelines.

The use of postoperative laxatives is recommended to reduce the risk of wound dehiscence. The recommended regime is lactulose 10mls BD for 10 days. Stress the need to avoid constipation – encourage fluids and fibre intake.

Bulking agents such as Ispaghula husk (Fybogel®) should **not** be prescribed/ given routinely.

Advice on hygiene – especially following bowel movements.

Women should be advised that physiotherapy following repair of OASI is beneficial and women should be encouraged to attend.

## **9. Follow-up post OASI**

Review should take place in a dedicated OASI clinic at 12 weeks postpartum.

Post-op follow up should occur at the secondary care site within the locality where the woman lives.

If the woman is still experiencing incontinence or pain at follow-up, referral to a specialist urogynaecologist or colorectal surgeon for endoanal ultrasonography and anorectal manometry should be considered. All women who sustained OASI should be counselled about future modes of delivery and this should be clearly documented in the notes.

Physiotherapy referral (prior to discharge) for 6 week post OASI repair and pelvic-floor exercises should be discussed prior to discharge.

The RCOG Patient information leaflet, 'Care of a 3rd or 4<sup>th</sup> degree tear during childbirth' (OASI) should be given.

## **10. Documentation**

Documentation using the agreed pro forma with respect to perineal trauma should include:

- Place of repair
- The extent of trauma (anatomical structures involved)
- Analgesia used for repair
- Suture material used
- Technique used (method of repair)
- Swab and needle count prior to and on completion of procedure
- Information given to the woman about the nature of her tear
- Postnatal plan of care
- Documentation of advice/leaflets given and follow up appointments made

The person repairing the tear should complete a pro forma, as shown in appendix C.

A Datix incident form should be completed following any case of a third, fourth degree and buttonhole tear.

## **11. Prognosis for Women**

Women should be advised that 60–80% of women are asymptomatic 12 months following birth and EAS repair.

### ***Future births***

There are no current randomized controlled trials (RCTs) to suggest the best method of birth following OASI. The risk of sustaining a further third- or fourth-degree tear is around 5-7% in the subsequent pregnancy (RCOG 1.)

All women who sustained OASI in a previous pregnancy should be counselled by an obstetric registrar or consultant about the mode of birth at booking and this should be clearly documented in the notes.

Reference should be made to the postnatal OASI clinic consultation.

All women who have sustained OASI in a previous pregnancy and who are symptomatic or have abnormal endoanal ultrasonography and/or manometry should have the option of elective caesarean birth.

The role of prophylactic episiotomy in subsequent pregnancies is not known and therefore an **episiotomy should only be performed if clinically indicated.**

## **12. Training**

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

A registered midwife may repair first and second degree perineal tears, episiotomies and uncomplicated labial tears once they have received appropriate training and have been deemed competent. Third and fourth degree repairs should be undertaken by someone appropriately trained and skilled i.e. obstetric registrar, obstetric consultant. Formal training in anal sphincter repair techniques should be an essential component of obstetric training.

### **13. Auditable Standards**

- Incidence of an OASI compared with reported incidence of less than 3.5% in the UK. (NMPA)
- 100% evidence of adequate documentation of systematic examination of the vagina, perineum and rectum prior to suturing of an OASI.
- 100% of OASI repaired with documented evidence of type of analgesia, suture material, method of repair and grade of operator (compliance with documentation on the proforma).
- 100% of repairs should be carried out by trained clinicians
- 100% of women with OASI are referred to a follow-up appointment as outline above.
- 100% of women with OASI referred to physiotherapy.
- 100% of women with OASI are datix reported

## 14. References

1. RCOG. The Management of Third- and Fourth-Degree Perineal Tears Green-top Guideline No. 29. June 2015. Accessed August 2016.
2. Obstetric anal Sphincter Injury (OASI)- UpToDate (Nov 2019) accessed 9/12/19



## **15. Useful links and support groups**

### **Bladder and Bowel Foundation**

<http://www.bladderandbowelfoundation.org/>

**Royal College of Obstetricians and Gynaecologists. *A third- or fourth-degree tear during birth: Information for you.* London: RCOG; 2015.**

<https://www.rcog.org.uk/en/patients/patient-leaflets/third--or-fourth-degree-tear-during-childbirth/>

### **Perineal Massage during Antenatal Period –**

<https://www.rcog.org.uk/en/patients/tears/reducing-risk/>

### **RCOG Patient information leaflet -**

<https://www.rcog.org.uk/globalassets/documents/patients/patient-information-leaflets/pregnancy/pi-third--or-fourth-degree-tear-during-birth.pdf>

### **OASI Care Bundle –Implementation guide for maternity sites in roll-out phase**

<https://www.rcog.org.uk/globalassets/documents/guidelines/research--audit/oasi-care-bundle/oasi-care-bundle-guide-final--050118.pdf>

<https://www.rcog.org.uk/globalassets/documents/guidelines/research--audit/oasi-care-bundle/episiotomy-angle-cutter-demonstrater.pdf>

<https://www.rcog.org.uk/globalassets/documents/guidelines/research--audit/oasi-care-bundle/mpp-technique.pdf>

<https://www.rcog.org.uk/en/patients/patient-leaflets/third--or-fourth-degree-tear-during-childbirth/>

# Appendix A OASI Repair Form

## OASI Repair Form

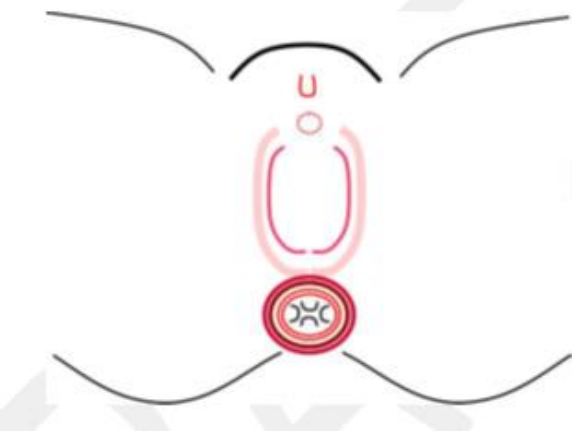
ADDRESOGRAPH

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: _____ (kg)
Length of 2 <sup>nd</sup> stage: ____ hrs ____ mins	Episiotomy: Yes/No
Shoulder dystocia: Yes/No	Previous 3 <sup>rd</sup> /4 <sup>th</sup> degree tear: Yes/No

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

**PR assessment to be undertaken to determine grade of tear**  
**Grade of tear: 3A  3B  3C  4<sup>th</sup>  Other:**



Vaginal mucosa: Interrupted / Continuous  
 Perineal muscle: Interrupted / Continuous  
 Perineal skin: Interrupted / Continuous / Unsutured

**All third and fourth degree tears should be sutured by a suitably trained obstetrician, with adequate regional anaesthesia in theatre.  
 Please ensure that local protocol and proformas completed in line with guidance.**

Buttonhole

	Repair:	Suture material:
External anal sphincter (EAS)	Overlap/End to end/Other	3/0 PDS/Other
Internal anal sphincter (IAS)	Interrupted/Continuous/Other	3/0 PDS/Other
Anal mucosa	Interrupted/Continuous/Other	3/0 Vicryl/Other
Vaginal mucosa	Interrupted/Continuous/Other	2/0 Vicryl rapide/Other



<b>NAME</b>	<b>Signature</b>	<b>Grade</b>
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## Appendix B Perineal tear (3<sup>rd</sup>/4<sup>th</sup> degree) – prophylaxis

### **PERINEAL TEAR (THIRD/FOURTH DEGREE TEAR INVOLVING ANAL/RECTAL MUCOSA)**

#### **First-line**

Cefuroxime IV 1.5g and Metronidazole IV 500mg stat intra-operatively

**THEN** (third degree tears may not require more than one stat IV dose):

Cefalexin (po) 500mg tds PLUS Metronidazole (po) 400mg tds

For 5 days total

#### **Cephalosporin/severe penicillin allergy**

**\*\*Do not omit gentamicin as this is required for Gram-negative coverage\*\***

Gentamicin (IV) 5mg/kg stat (see [dose banding table](#)) intra-operatively

#### **PLUS**

Metronidazole (IV) 500mg stat intra-operatively

**THEN** (third degree tears may not require more than one stat IV dose):

ORAL SWITCH – discuss with Consultant Microbiologist

For 5 days total

#### **References:**

[RCOG The Management of Third- and Fourth-Degree Perineal Tears Green-top Guideline No. 29 June 2015](#)

## Appendix C OASI Pro forma

PLEASE COMPLETE FOR ANY OASI AND FILE IN NOTES

Was the woman informed of OASI antenatally?	YES NO Comment -
Were risk factors identified and discussed?	Antenatally In Labour Not discussed
Was OASI discussed when woman in labour?	Yes No Don't Know
Was manual perineal protection MPP used?	Yes No
Was perineal massage performed	Antenatally In labour Not performed
Was perineal warm compress used?	Yes No
Mode of birth?	
Episiotomy performed? Extended episiotomy? Angle of episiotomy?	Yes No Yes No Degree
Documented reason for episiotomy?	Yes No
OASI category	
Completion of OASI repair form?	Yes No
Debrief for woman? Physiotherapy appointment (6weeks) OASI clinic appointment (12weeks)	Yes No Yes No Yes No

**Directorate of Women & Child Health Checklist for Clinical Guidelines being submitted for Approval by Quality & Safety Group**

Title of Guideline:	Management of third and fourth degree perineal repairs
Name(s) of Author:	Intrapartum Guideline Group Catrin Rees, Karin Bisseling, Nadia Bhal
Chair of Group or Committee supporting submission:	Mohamed Elsnasharty, Sharon Evans, Kathryn Greaves
Issue / Version No:	1
Next Review / Guideline Expiry:	2023
Details of persons included in consultation process:	Labour Forum, All Obstetric Consultants, pharmacy
Brief outline giving reasons for document being submitted for ratification	To replace existing CTM and ABM policy
Name of Pharmacist (mandatory if drugs involved):	Checked by MMEC Scrutiny Group
Please list any policies/guidelines this document will supersede:	Management of third and fourth degree Perineal repair
Keywords linked to document:	Oasis Third Fourth Degree tears Perineal repair button hole
Date approved by Directorate Quality & Safety Group:	
File Name: Used to locate where file is stores on hard drive	

