THIRD AND FOURTH DEGREE TEARS

DEFINITION

A third degree tear is an injury to the perineum involving the anal sphincter complex and can be classified in three types:

3a: Less than 50% of the External Anal Sphincter (EAS) thickness torn.
3b: More than 50% of the EAS thickness torn.
3c: Both the EAS and the Internal Anal Sphincter (IAS) torn.

A fourth degree tear is an injury to the perineum involving the anal sphincter complex (external and internal) and the rectal mucosa.

RISK FACTORS

Risk factors for third-degree tears have been identified in a number of retrospective studies (referenced in RCOG (2006)). Taking an overall risk of 1% of vaginal births, the following factors are associated with an increased risk of a third or fourth degree tear:

- birth weight over 4 kg
- persistent occipito posterior position
- nulliparity
- induction of labour
- epidural analgesia
- second stage longer than 1 hour
- shoulder dystocia
- midline episiotomy
- forceps delivery

PRINCIPLES OF REPAIR

All women having a vaginal birth should have a systematic examination of the vagina and perineum following birth. Any suspicion of a third or fourth degree tear should be referred to an Obstetric Registrar or Consultant for assessment. In cases where there is any doubt a rectal examination should be performed.

1. It is recommended that repair is carried out in the operating theatre under regional or general anaesthesia as this provides:
    - appropriate assistance
    - aseptic conditions

- appropriate instruments
- adequate light
- correct processes around swab counts and
- effective pain relief for the woman so that the anal sphincter is relaxed enabling repair without tension to the tissue.

2. All repairs should be carried out either by:
   - a Consultant Obstetrician
   - a Competency Certified Registrar
   - a Registrar/SHO directly supervised by a Consultant Obstetrician

3. The repair should be documented on Perineal Injury repair record (Ref. 8645).

4. The woman should be informed about:
   - The nature of the injury
   - The need for prophylactic antibiotics and laxatives
   - The importance of follow up at Perineal Clinic at Christchurch Women's Hospital.
   - The importance of early reporting of any symptoms of incontinence

PROCEDURE FOR REPAIR

1. The anal mucosa should be repaired with interrupted 2/0 or 3/0 vicryl.

2. Sphincter muscles should be repaired with 2/0 or 3/0 PDS[1].Women should be informed that it may take a long time for these sutures to dissolve (more than 6 weeks) and that they may be aware of the knots around the anus.

3. The anal sphincter should be repaired using an overlap or an end to end (approximation) method.[2,3] There is no evidence that either method is more advantageous.

4. If it is recognised that the internal anal sphincter is disrupted, the edges should be grasped and end to end anastomosis performed.

5. The remainder of the repair is carried out as for a second degree tear or episiotomy.

POST REPAIR MANAGEMENT AND FOLLOW-UP

1. Antibiotic prophylaxis should be given

   - IV amoxicillin/clavulanate 1.2 g STAT at repair, followed by
   - Oral amoxicillin/clavulanate 625mg TDS for 3-5 days

   For patients with mild Penicillin allergy:
   - IV cefazolin 1 g (or IV cefuroxime 750 mg) and IV metronidazole 500 mg STAT at repair, followed by
   - Oral cefaclor 500 mg TDS and metronidazole 200 mg QID for 3-5 days

   For patients with severe Penicillin allergy:
   - IV clindamycin 600 mg and IV gentamicin 5-7 mg/kg STAT at repair, followed by
   - Oral clindamycin 300 mg QID and ciprofloxacin 500 mg BD for 3-5 days

2. Analgesia should be prescribed:

   - Rectal diclofenac 100 mg and paracetamol 1.5 g STAT at completion of repair
   - Oral non-steroidal anti-inflammatory and paracetamol as required
   - Avoid opiate analgesia as this may cause constipation

3. A stool softener should be prescribed – lactulose 10 mLs BD for 10 days.[4] Kiwicrush or Sodium docusate tablets are an acceptable alternative.

4. Ice therapy, to decrease swelling for first 48-72 hours. Apply an ice pack in a sanitary pad to the perineum for 20 minutes every 3-4 hours.

5. Referral to the obstetric dietician (Ref.7304) should be made on arrival to the Maternity Ward. Written information while the woman is an inpatient will be provided giving advice on avoiding constipation or diarrhoea and adequate fluid intake (1.5-2 L /day).

6. Referral to the obstetric physiotherapist (Ref. 7304) should be made on arrival to the Maternity Ward where the woman should remain an inpatient for 24 hours. If not reviewed by the physio prior to discharge, the physio will make phone contact with the woman to ascertain if an appointment is necessary.

7. Post delivery the obstetrician performing the repair should ensure that the woman has a full understanding of the implications of the tear and the plans for subsequent follow-up at the Perineal Clinic, Christchurch Women's Hospital.

8. The woman should be provided with a leaflet 'Third or Fourth Degree Perineal Tear' (Ref.7210).

9. The discharge letter to the LMC and GP should contain information regarding the tear and repair.

10. The woman should be assessed by her LMC at the usual 6 week check to ensure perineum healing, pain resolved and no faecal incontinence. The 6 week checklist (Ref.C270120) is completed by the LMC and if issues are identified a referral is made to the Physiotherapy Department.

11. If no referral is required, the woman is placed on the Recall System (Ref.6678) for six months post birth. If issues are identified a referral is made to the physiotherapy department or gynaecology outpatients department to be seen in 4 weeks.

THIRD AND FOURTH DEGREE TEAR AUDIT STANDARDS

Collection of data for audit may include:

- Number of third and fourth degree tears as a percentage of vaginal deliveries
- Review of documented systemic examination of the vagina, perineum and rectum prior to suturing of the obstetric anal sphincter injury.
- Proportion repaired in theatre, type of analgesia, suture material and method of repair.

REFERENCES

1. RCOG (2007) Management of third and fourth degree perineal tears following vaginal delivery. RCOG Green Top Guideline No. 29. RCOG, London
2. Fitzpatrick M et al (2000). A randomized clinical trial comparing primary overlap with approximation repair of third degree obstetric tears. American Journal of Obstetric & Gynaecology, Nov;183(5) : 1220-4
3. Sultan AH et al (1999) Primary repair of obstetric sphincter rupture using overlap technique. British Journal of Obstetrics Gynaecology, 106 (4) :318-23
4. Mahony R et al (2004) Randomized, clinical trial of bowel confinement vs. laxative use after primary repair of a third degree obstetric anal sphincter tear. Dis Colon Rectum. Jan;47(1):12-7. Epub 2004 Jan 14.
5. The Rosie Hospital, Cambridge University Hospitals NHS Foundation Trust, Guideline: Repair of Third and Fourth Degree Tears; July 2008

Canterbury District Health Board
Te Poari Hauora ō Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
MATERNITY OUTPATIENTS

SURNAME: ..... NHI: .....
FIRST NAME: ..... DOB: .....
ADDRESS: .....
.....POSTCODE: ..... *(or affix patient label)*

3rd & 4th Degree Perineal Tear – 6 Week Checklist

PATIENT DETAILS

Contact numbers	Home: Mobile:	
Date and time	……/……../…….. @ …… am / pm	
LMC	Phone:	
Date of delivery		☐ Gravida ☐ Parity ☐ 3rd degree ☐ 4th degree

PRESENTING DETAILS

All women should be provided with the following patient information leaflets:

- Ref.7210 Third or fourth degree perineal tear
- Ref.8044 Pelvic floor muscle exercises

Perineum	Pain	☐ Yes ☐ No
	Not healed	☐ Yes ☐ No
	Unable to contract pelvic floor	☐ Yes ☐ No
Pelvic floor	Heaviness	☐ Yes ☐ No
	Dragging	☐ Yes ☐ No
	Bulging	☐ Yes ☐ No
Bowel incontinence	Urgency	☐ Yes ☐ No
	Flatus	☐ Yes ☐ No
	Liquid stool	☐ Yes ☐ No
	Firm stool	☐ Yes ☐ No
Urinary incontinence	Leakage	☐ Yes ☐ No
	Urge incontinence	☐ Yes ☐ No
Is your client concerned about any of these issues?		☐ Yes ☐ No

FOLLOWING CHECK

- Is a referral to Physiotherapy Department required for further advice and/or assessment ☐ Yes ☐ No
- If answer is yes, please fax this form to (03) 364 0442

Please advise your client she will be placed on the GP recall system for **6 months and will be contacted by the medical practice to complete the follow-up process**

RECOMMENDATION

3rd degree or 4th degree tear – recommend obstetric assessment next pregnancy to discuss mode of birth

Name:	Date:
Signature	Designation:

3RD & 4TH DEGREE TEAR CHECKLIST

C270120