Document Type:	**Level 4 – Departmental Procedures**
Department:	**O & G Services**
Section:	**TNH – O & G Manual**
Subject:	**Management of Third- and Fourth-Degree Perineal Tears**
Approved by:	**Clinical Services Director, TNH**

Northern Health

THE MANAGEMENT OF THIRD- AND FOURTH-DEGREE PERINEAL TEARS

PURPOSE & SCOPE

To provide a guideline that will assist in the diagnosis, initial management and treatment of obstetric anal sphincter injury, and management of the subsequent birth.

POLICY

AUTHORS

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1. INTRODUCTION AND BACKGROUND

Obstetric anal sphincter injury encompasses both third and fourth degree perineal tears. Risk factors for third and fourth degree tears include shoulder dystocia, delayed second stage of labour, nulliparity and birthweight over 4kg.

The rate of obstetric anal sphincter injury is reported to be around 1% of all vaginal deliveries[1]. Despite primary repair of anal sphincter injuries, many women continue to suffer varying symptoms of anal incontinence. The prevalence of anal incontinence following primary repair is estimated between 15% and 61%[2].

Medical staff who are appropriately trained are more likely to provide a consistent, high standard of anal sphincter repair and contribute to reducing the extent of morbidity associated with anal sphincter injury.

2. RESPONSIBILITY

- Clinicians, both midwives and medical staff
- Physiotherapists
- Dieticians
- Urogynaecology and Colorectal specialists

3. OUTCOMES

To increase the awareness of risk factors for obstetric anal sphincter injury, the correct process involved in identification and repair and appropriate long term management.

4. RISK FACTORS

Clinicians need to be aware of the risk factors for obstetric anal sphincter, but also recognise that known risk factors do not readily allow prediction or prevention of such an injury[1].

- birth weight over 4kg
- persistent occipitoposterior position
- nulliparity
- induction of labour
- epidural analgesia
- prolonged second stage of labour (>1hour)
- shoulder dystocia
- midline episiotomy
- forceps delivery

5. CLASSIFICATION AND TERMINOLOGY

If there is any doubt about the grade of a third-degree tear, it is recommended that it be classified to the higher degree.

- **First degree** -Injury to perineal skin only.
- **Second degree** -Injury to perineum involving perineal muscles but not involving the anal sphincter.
- **Third degree** - Injury to 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 perineum involving EAS, IAS and anal epithelium[3].

A tear involving only anal mucosa with intact sphincter complex (buttonhole) must be documented separately.

6. IDENTIFICATION

- All women sustaining genital tract trauma following a vaginal delivery should be examined systematically prior to suturing using the Perineal Injury Worksheet.
- All women who have an instrumental birth, or who have extensive perineal injury, should be examined by a consultant or senior registrar trained in the recognition and management of perineal tears.
- Increased vigilance of anal sphincter injury has been found to double detection rate[4].

7. REPAIR TECHNIQUE FOR THIRD- AND FOURTH-DEGREE PERINEAL TEARS

Repair of third- and fourth-degree tears should be conducted in an operating theatre, under regional or general anaesthesia by appropriately trained practitioners.

When consenting the patient, it is important that clinicians should clarify that the planned procedure is to repair damage that has already occurred, and that the quoted risks might be linked to sphincter damage rather than repair. It should be stressed that quoted risks are likely to be significantly higher if the trauma is not repaired[1].

- Serious risks include: - Incontinence of stools and/or flatus (common)
  - Caesarian section for future delivery (uncommon)
  - Haematoma or secondary repair (rare)

- Frequent risks include: - fear, difficulty and discomfort in passing stools in immediate postnatal period
  - migration of suture material requiring removal
  - granulation tissue formation
  - faecal urgency (26%)
  - perineal pain and dyspareunia (9%)
  - wound infection (8%)
  - urinary infection[1].

Surgical techniques

- Repair of EAS
  - Either an **overlapping or end-to-end** method can be used with equivalent outcome.
- Repair of IAS
  - Repair **end-to-end** separately with interrupted sutures.
- Repair of the anal epithelium
  - Interrupted sutures with knots in the anal lumen.
- Repair of perineum
  - Important to provide support to anal sphincter repair.
  - Deficient perineum increases risk of anal sphincter trauma during subsequent vaginal delivery[5].

Perform a rectal examination at the end to ensure the repair is intact.

Choice of suture materials

- Repair of anal sphincter (EAS and IAS) – 2-0 PDS.
- Repair of anal epithelium – 3-0 Vicryl.
- Burying of surgical knots beneath the superficial perineal muscles is recommended to prevent knot migration to the skin.

8. POSTOPERATIVE MANAGEMENT

- The use of broad-spectrum antibiotic cover is recommended after obstetric anal sphincter repair to reduce the incidence of postoperative infections and wound dehiscence[1].
- Initially 24-48 hours of intravenous antibiotics, Metronidazole 500mg TDS and Cephazolin 500mg TDS, followed by oral Amoxicillin 500 mg and Clavulanic acid 125mg (e.g. Augmentin Duo®) 12 hourly with meals over 5 days.
- If allergic to penicillin, use both
  - oral Ciprofloxacin 250 mg 12 hourly for 5 days, and
  - oral Clindamycin 450mg 8 hourly for 5 days.

- Ice packs and resting supine / prone for the first 24-48 hours, then for 10 - 20 minutes every 2 – 3 hours over the first week. This may decrease symptoms of pelvic floor fatigue (e.g. swelling, pain and perineal descent).

- Bulking agents and stool softeners (e.g. Fybogel® 1 sachet three times a day, Lactulose® 20 mL twice daily, and Coloxyl® 120 mg 1-2 nocte in addition as required) are recommended. Commence after 24 hours and continue for two weeks before weaning off. Educate the woman about the need for adequate fluid intake when using bulking agents.

- Adequate analgesia such as non-steroidal anti-inflammatory analgesia, plus oral paracetamol and tramadol as required. Avoiding codeine as it may cause constipation.

Prior to discharge from the hospital, the woman should be:

- Fully informed about her injury and benefits of follow up.
- Provided with written consumer information.
- Seen by a physiotherapist to commence a pelvic floor rehabilitation program
- Seen by a dietician and commenced on a low residue diet for seven days to achieve a delayed, the soft and easy to pass stool.
- Referred to Gynaecology outpatients six weeks post partum.

If a woman is experiencing incontinence or pain at follow-up, referral to a specialist gynaecologist or colorectal surgeon for endoanal ultrasonography and anorectoal monometry should be considered.

9. FUTURE DELIVERIES

- All women who sustained an obstetric anal sphincter injury in a previous pregnancy should be counselled about the risk of developing anal incontinence or worsening of symptoms with subsequent vaginal delivery.

    - ✴Subsequent delivery does not worsen anal sphincter function if endoanal U/S and manometry are normal after 1st repair[6].

- All women who sustained an obstetric anal sphincter injury in a previous pregnancy should be advised that there is no evidence to support prophylactic episiotomy in subsequent deliveries.

- Option of elective C/S should be offered to women who are symptomatic from their obstetric anal sphincter injury or have abnormal endoanal ultrasound and/or manometry[7].

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