Neurogenic Bladder and bowel Management

Lee Francis – Spinal Specialist Nurse – March 2017
Topics to be covered

• Neurogenic dysfunction
• Impact of Neurogenic bladder and bowel dysfunction
• Management of Neurogenic Bowel dysfunction Acute and beyond
• Management of Neurogenic Bladder dysfunction Acute and beyond
Neurogenic dysfunction

Neurogenic simply means – Caused, controlled by or arising in the nervous system.

A life-altering impairment of both the urinary bladder, gastrointestinal and anorectal function resulting from a lesion of the nervous system that can lead to life-threatening complications such as autonomic dysreflexia
**Patient impact**

‘SCI individuals rated bowel & bladder dysfunction as having most significant effect on their life following injury’. (Steins et al 1997)

- Post SCI 75% report some faecal incontinence.
- 8-33% at least monthly.
- 11% weekly or more.
- 39-58% report constipation.
- Altered bowel function interferes with life for 39-62% of SCI individuals.
- Ineffective management limits community reintegration and opportunities

Spinal Shock

Spinal shock in the acute phase will typically affect immediately following SCI.
- All sensation, movement and reflex activity below injury level are absent.
- Anus and rectum will be flaccid, the colon will be paralysed with a silent paralytic ileus.
- Recovery of these reflexes takes days to weeks to recover.
There are 2 reflex types post ‘shock’ phase of SCI.

- **Lower Motor Neurone**
  - Flaccid Paralysis
  - Areflexic Bladder & Bowel function.
  - Absent Bulbocavernosus reflex & anal wink.

- **Upper Motor Neurone / Suprasacral lesions**
  - Reflex Paralysis
  - Reflexic Bladder & Bowel Function.
  - Positive Bulbocavernosus reflex & anal wink.
Neurogenic Bowel - Aims

Assist the individual to establish reliable control of bowel function;
- do no harm
- which does not take longer than 1 hour
- minimises incontinence
- prevents constipation
- promotes predictable evacuation

identify the individuals goals for bowel care;
- type of independence possible
- persons plans for life, work or social
- resources available
Acute vs Routine??

• During Acute (shock) phase;
  
  - Monitor bowel sounds routinely - NBM!
  
  - Observe for abdo distention -? glycerin supps
  
  - DRE - assess for stool and return of reflexes.
  
  - Record all output planned or incontinence

North West care management pathway for the critically ill patient with spinal cord injury (2012)
Routine Reflex management

bowel evacuation can be achieved by recruiting the intact reflexes.

the use of pharmacological agents and or in conjunction with digital rectal stimulation can achieve this.

the optimal basis for the interventions is individual and must be closely monitored for effectiveness.

diet, fluids, correct doses of medication and routine are paramount to success.
Daily or alternate day at a regular time
Attention to diet
Regular oral medications for stool consistency if required
Stool consistency Bristol Scale 4

Stimulant laxatives 8-12 hrs before planned bowel care if required
Hot drink and/or food 20-30 minutes before bowel care

Gastrocolic reflex

Insert rectal stimulant – suppositories/enema

Abdominal massage

Digital rectal stimulation

Digital removal of faeces (DRF) if required

Digital rectal examination to check if evacuation complete

Rectum empty?

Stool in rectum

Yes – repeat check after 5 mins, if still empty
Areflexic Management

As there are no preserved anal reflexes stimulation, pharmacological or digital will be ineffective.

Routine digital removal of faeces is advised as first line/basic management.

Use of straining/Valsalva manoeuvre is not advised.

Individuals should aim for firm stool (2/3) to facilitate DRE and reduce the risk of stress incontinence due to physical activity.
Daily or twice daily at a regular time
Attention to diet
Regular oral medications for stool consistency if required
Stool consistency Bristol Scale 2-3

Stimulant laxatives 8-12 hrs before planned bowel care if required
Hot drink and/or food 20-30 minutes before bowel care

Gastrocolic reflex

Abdominal massage

Digital removal of faeces (DRF)

Digital rectal examination to check if evacuation complete

Rectum empty?

Stool in rectum

Yes – repeat check after 5 mins, if still empty evacuation is complete
Hierarchy of Management methods

6. Stoma
5. Nerve stimulation – sacral, anterior root
4. Antegrade colonic irrigation
3. Transanal irrigation
2. Rectal interventions – digital stimulation, digital evacuation, suppositories, small enemas
1. Routine, diet and fluids, lifestyle alterations, laxatives, constipating medicine
Documentation

Good record keeping is paramount in establishing and maintaining an effective and individualised bowel management plan.

What should we record;

- Date, time
- Staff member
- Location
- Medications used
- Interventions used
- Outcome:
  stool type, volume, reflex / DRE, unplanned and time taken.
- Changes to plan.....
# NWSIC Bowel Management Chart

**Name**: ................................................................. **Hospital No**: ................................................................. **DOB**: ................................................................. **Level**: .................................................................

**Assessor**: ................................................................. **Date**: ................................................................. **REFLEX/FLACCID** (Please circle)

**Aperient**: ................................................................. **Frequency**: ................................................................. **Stimulant**: .................................................................

## APERIENT

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Medication</th>
<th>Date/Time</th>
<th>Consent</th>
<th>DRS</th>
<th>Rectal Stimulant</th>
<th>U.T.</th>
<th>Reflex Spont Type</th>
<th>Man/Evac Type</th>
<th>Time Taken</th>
<th>Initials</th>
<th>UNPLANNED</th>
<th>Reported to RN</th>
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**Comments**: 

**Comments**: 

**Comments**: 

Reviewed by R/N................................................................. **Date**: .................................................................

Any Changes.................................................................

*DRS = Digital Rectal Stimulation  U.T. = Up To Toilet*
Complications

- Reduced quality of life
- Faecal incontinence
- Constipation
- Faecal impaction
- Haemorrhoids
- Anal fistulas/tear
- Rectal prolapse
- Megacolon / Megarectum
Neurogenic bladder management

- Prevent bladder distension.
- Prevent urinary tract infections.
- Prevent formation of renal calculi.
- Prevent renal impairment.
- Prevent autonomic dysreflexia
- Prevent meatal trauma
- Maintain continence
Early/Acute management

- Size 12 silastic urethral catheter.
- Use thigh strap to prevent meatal trauma.
- Monitoring urinary output.
- Vigilance for Autonomic dysreflexia.
Routine management

• When is the right time to move forward?
Assessing bladder function

- Urodynamics.
- TWOC
- Post void bladder scan
- If not voided after 4 hours perform intermittent catheter or consider reinsertion indwelling catheter.
- Use thigh strap and short tube urine drainage bag.
Bladder Management Options

**Lower motor neurone**
- Flaccid bladder
- Self intermittent catheter
- Penile sheath
- Indwelling catheter

**Upper motor neurone**
- Reflex bladder
- Penile sheath
- Detrusor relaxant - oxybutinin
- Self intermittent catheters to ensure complete emptying
Complications

• Vigilance around passing indwelling catheters
• Positioning of tubing and drainage bags.
• Precautions around catheter blockages
• Potential for trauma and the lifelong effect.
Urethral/Meatal erosion
References

• MASCIP (2012) Guidelines for the management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions. Consensus document. MASCIP.


• Green, D (2013) Neurogenic bowel dysfunction. SCI-elearn.org. Online education module. ISCOS.