

Management of Urinary & Faecal Incontinence Post-Stroke.

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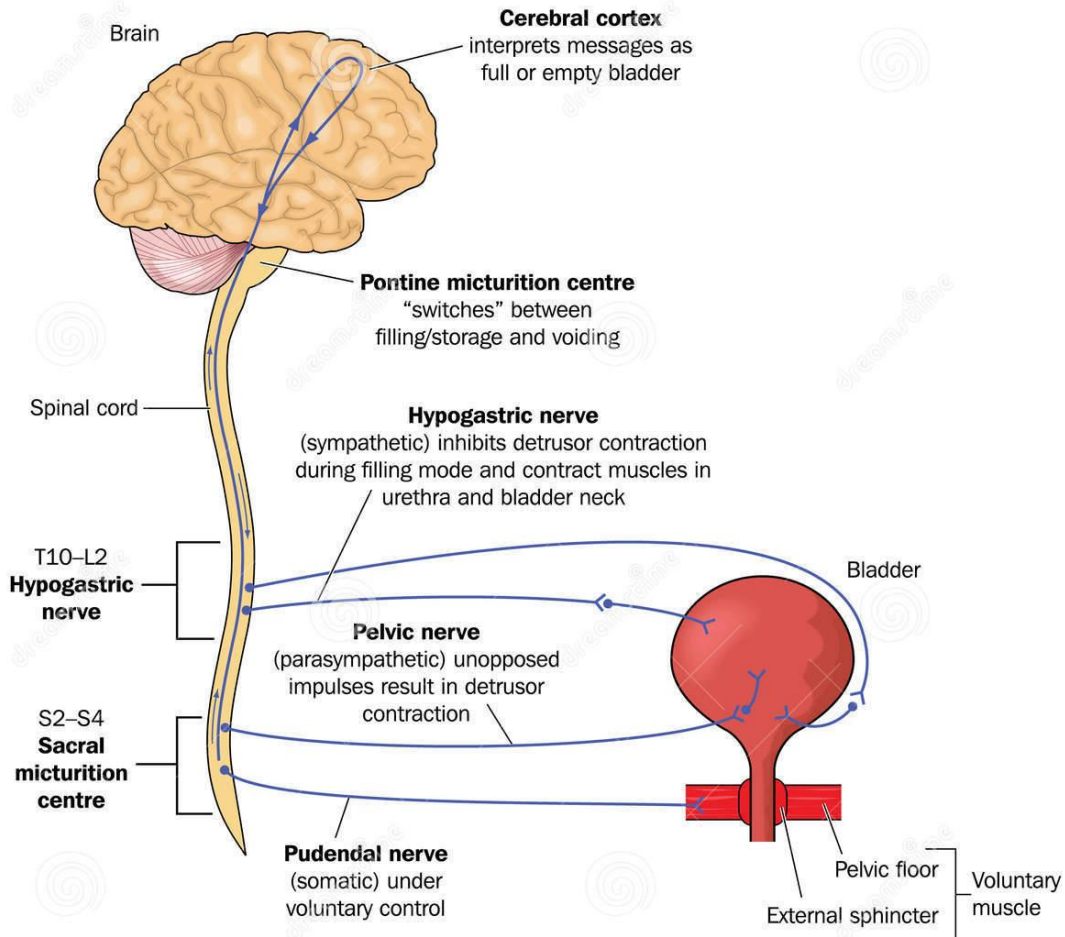
Part 1: Objectives

1. Develop an understanding of normal micturition
2. Identify types of urinary incontinence post-stroke
3. Introduce a new post-stroke urinary continence pathway / management plan

Background

- 40-60% of stroke survivors experience lower urinary tract dysfunction [LUTD] (Thomas *et al.* 2008).
- Post-stroke UI is associated with increased patient mortality and morbidity (Sommerfield *et al.* 2011, Wit *et al.* 2012, Van Almenkerk *et al.* 2013).
- Urinary incontinence [UI] is acknowledged as a significant problem but other needs are deemed of greater importance (Booth *et al.* 2009).
- Registered nurses [RN] are often unable to distinguish between types of UI and management techniques (Booth *et al.* 2009).
- Concerning as assessment and implementation of management programmes often facilitated by nurses (Intercollegiate Stroke Working Party [ISWP] 2016).

Normal Micturition



Types of Incontinence

Type	Symptoms	Pathophysiological cause
Urge incontinence (Detrusor hyperreflexia)	Involuntary leakage associated with urgency and frequency or nocturia.	Stroke lesion damages the neuro-micturition pathways directly.
Overflow incontinence (Detrusor hyporeflexia)	Continuous and/or dribbling of urine. Associated with acute/chronic urinary retention, poor stream and straining whilst voiding.	Loss of bladder tone during the acute phase of stroke. Note, the pathophysiological cause of bladder tone loss is not fully understood.
Functional incontinence	Urinary incontinence despite normal neurological bladder functioning.	Indirect cause due to cognitive or motor disabilities, rendering the survivor unable to mobilise to the toilet or express the need to pass urine.
Reflex incontinence & urinary incontinence with impaired awareness	Reduced awareness of bladder fullness. Follows a normal voiding pattern.	Total or partial anterior circulatory stroke with new parietal and sub cortical damage.

Adapted from Mehdi *et al.* (2012) and Woodward (2014).

Perceived barriers to promoting urinary continence

- Time
- Manpower
- Lack of education - staff & patient
- Patient resistance
- Staff roles
- Culture
- Other therapies take priority

A new way of thinking or evidence in action?

ICONS Study (Thomas *et al.* 2015).

- Primary outcome: to assess for the presence/absence of UI at 12-weeks post-stroke between a Systematic Voiding Programme [SVP] and usual care [UC].
- Secondary outcome: to assess the effects that a SVP has on differing types of UI and the frequency and/or severity of incontinent episodes.
- No overall benefit at 12-weeks noted between the SVP when compared to UC

However...

- Sub-group analyses: of all stroke types (except ACA infarcts) patients were more likely to be continent at 12-weeks when using a SVP
- Better level of continence achieved in patient's with stress or urge incontinence

Continence tools for residential aged care (O'Connell *et al.* 2009).

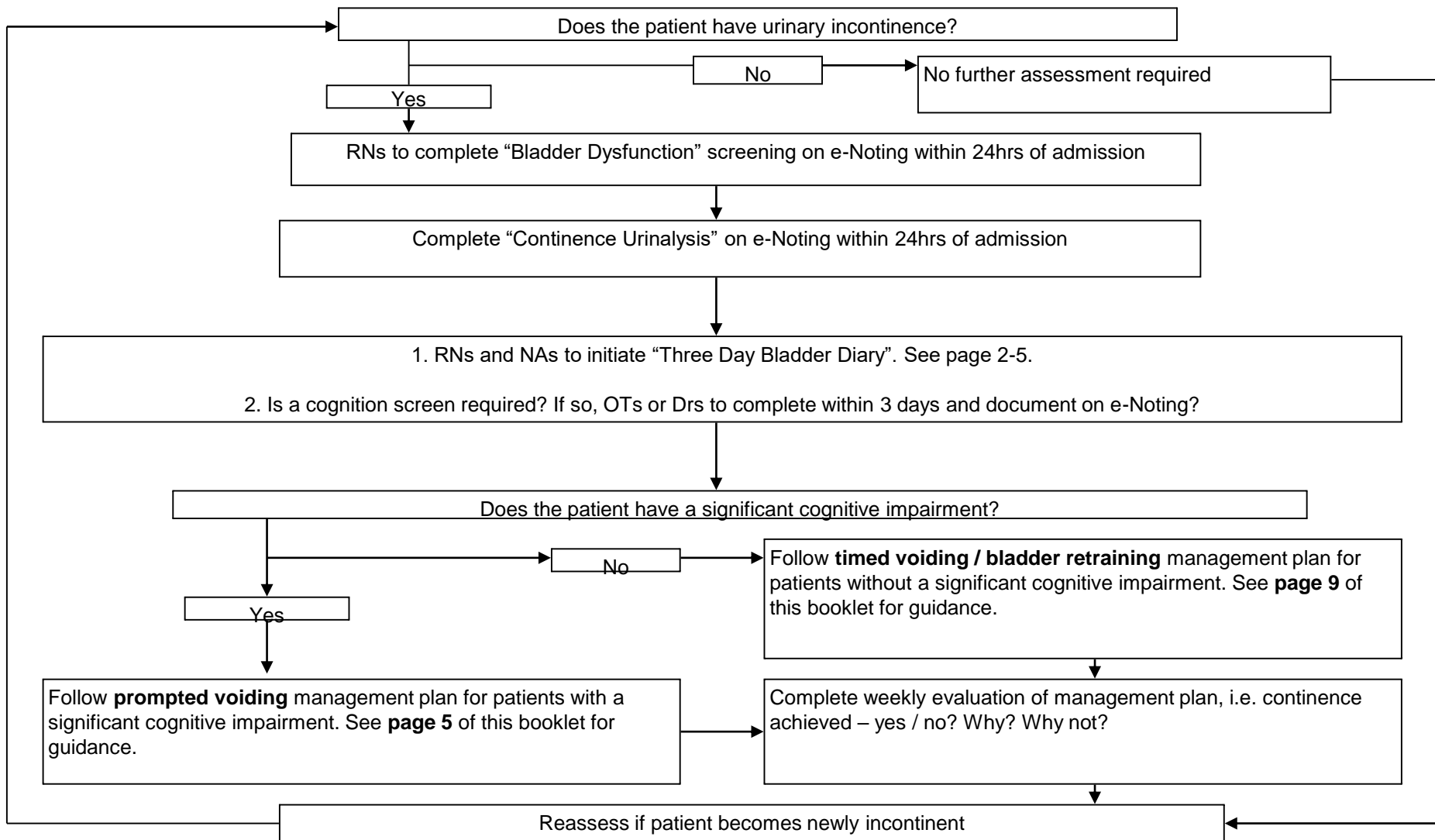
- User friendly
- Users similar tools available on the ward

Our initiative

- A new stroke specific pathway
- Staff education programme - formal & ad hoc
- Improved MDT collaboration
- Patient Education

A stroke specific pathway

Bladder Management Flow Chart in Stroke



Three day bladder diary

Day 1 Date:	Time	Drinks (amount i.e. 1 cup / type)	Continent Yes/No (i.e. to the toilet, bed pan)	Incontinent Yes/No Degree of wetness i.e. Pad only Pad & underwear Pad, underwear & sheets	Weight of Pad (mg)	Comments (e.g. unable to get to the toilet, spilt bottle, patient reported sensation)
<i>Example</i>	<i>0800</i>	<i>Cup of tea</i>	<i>No</i>	<i>Yes - pad & sheets</i>	<i>320 mg</i>	<i>Unable to get to the toilet</i>
Waking to breakfast						
	0815	x1 cup of coffee	No	Yes - Pad	200 mg	Reported urgency
Breakfast to lunch						
	1130	x2 cups of water	No	Yes - Pad & sheets	160 mg	Unable to use bottle in time
Lunch to mid-afternoon						
Mid-afternoon to dinner						
	1445	x1 cup of tea	No		220 mg	
	1610		Yes	No – used bottle	120 mg	Helped to use bottle
Dinner to bed						
	1900	x1 coffee	No	Yes - Pad	200 mg	Unable to remove pad in time
Overnight						

Management Plan

Time (Based on patient's Bladder Diary)	Intervention i.e. Patient taken to bathroom/sat on commode; patient encouraged to increase time interval between voids etc.	Did the patient increase their "hold time" between voids?	Outcome i.e. Did the patient pass urine?	Comments i.e. Were they continent/incontinent?	Sign
<i>Example 0500</i>	<i>Patient encouraged to hold urine for a further 10 minutes, then walked to the toilet with assistance</i>	Yes	Yes	Continent	JH
0700	Offered bottle and passed urine	No	Yes	Continent	
1000	Assisted to toilet and passed urine	No	Yes	Continent	
1400	Offered bottle and helped to pass urine	No	Yes	Continent	
1530	Helped to the toilet and passed urine	No	Yes	Incontinent	
1800	Offered bottle and passed urine	No	Yes	Continent	

Time (Based on patient's Bladder Diary)	Intervention i.e. Patient taken to bathroom/sat on commode; patient encouraged to increase time interval between voids etc.	Did the patient increase their "hold time" between voids?	Outcome i.e. Did the patient pass urine?	Comments i.e. Were they continent/incontinent?	Sign
<i>Example 0500</i>	<i>Patient encouraged to hold urine for a further 10 minutes, then walked to the toilet with assistance</i>	Yes	Yes	Continent	JH
0700	Offered bottle and passed urine	No	Yes	Continent	
1015	Assisted to toilet and passed urine	No	Yes	Continent	
1430	Offered bottle and helped to pass urine	No	Yes	Continent	
1615	Helped to the toilet and passed urine	No	Yes	Incontinent	
1900	Offered bottle and passed urine	No	Yes	Continent	

Prompted voiding

Prompted voiding is an intervention that is designed to minimise incontinent episodes (Thomas *et al.* 2014, Thomas *et al.* 2015).

Not designed to affect bladder function (Thomas *et al.* 2008).

Most **appropriate for patients with a significant cognitive impairment or those that cannot effectively communicate their need to urinate.**

Verbal prompts and **positive reinforcement** are used to support the intervention (Eustice *et al.* 2000).

Timed voiding / bladder retraining

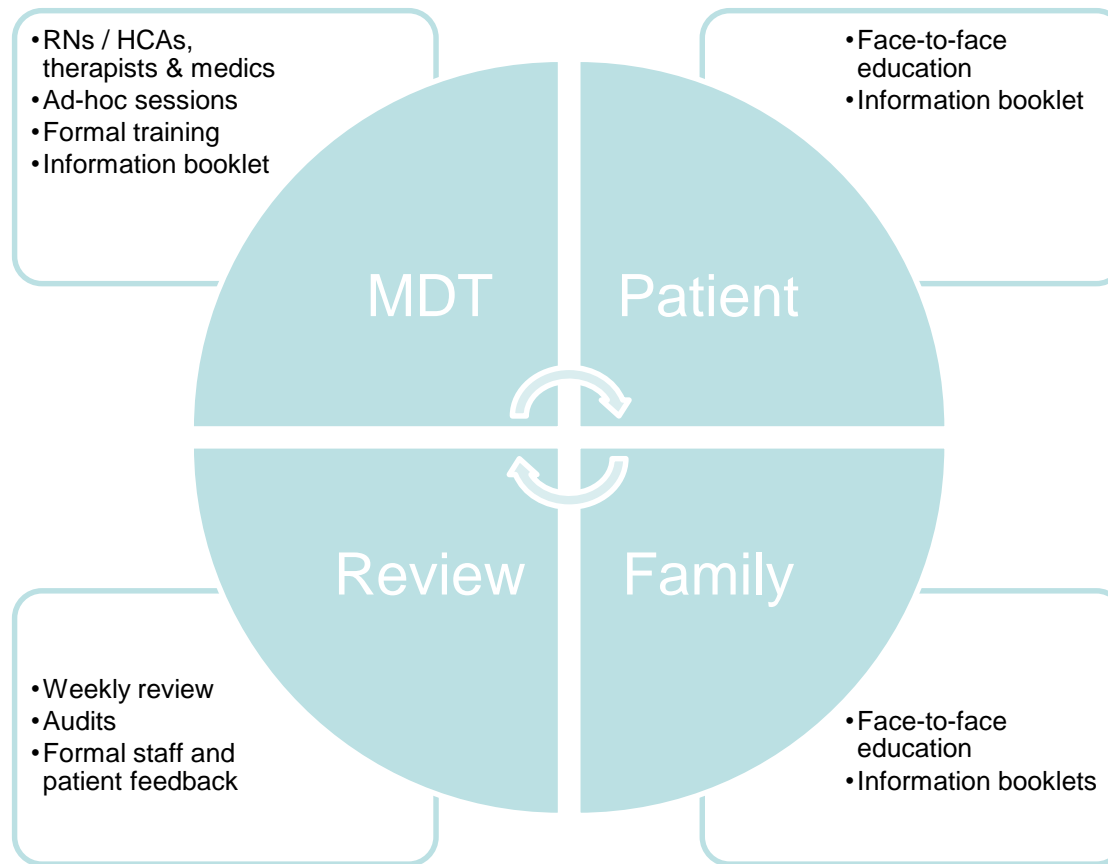
- **Timed voiding** is an intervention whereby the bladder is emptied at regular intervals (before the bladder is full) in order to avoid urgency to void.
- **Bladder retraining** requires the individual to **progressively increase the time intervals between urinations**.
- Goal is to return the patient to a “normal” voiding pattern.
- Distraction techniques can be utilised to suppress the urge to void (Thomas *et al.* 2014, Thomas *et al.* 2015).

TIMED VOIDING + BLADDER RETRAINING

Pelvic Floor Muscle Training [PFMT]

- Relevant to bladder retraining.
- Incorporated into programme in order to help increase intervals between voids.
- Involves physio support.

Successful implementation through education



Summary

- Move away from containment towards rehabilitation.
- Improving urinary continence management can improve outcomes for stroke patients.
- Effective management of urinary continence is a MDT effort.

Part 2: Objectives

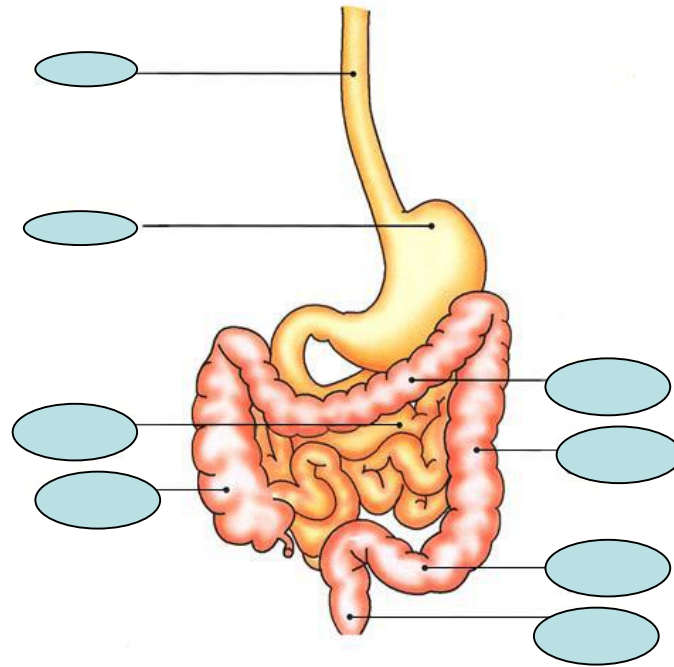
1. Anatomy and physiology of the bowel
2. Identify different types of bowel dysfunction
3. Develop an awareness of bowel assessments and interventions

Background

- South London Stroke Register (1995-2000). Prevalence of post-stroke faecal incontinence (FI) at:
 - 7-10 days = 30%
 - 1 year = 11%
 - 3 years = 15%
- FI at 3 months is associated with long-term placements (28% vs. 6%) and death within 1 year (20% vs 8%).

Harari *et al.* (2003)

Bowel Anatomy



Nursing Management

	Nursing management
Faecal incontinence <ul style="list-style-type: none">• can't control wind, leaks liquid or soft stool without prior warning• sudden urge to pass stool, doesn't always make it on time	<ul style="list-style-type: none">• Bowel chart• Toileting regime• Review medication• Diet
Constipation (not passing stool regularly, unable to fully empty bowels)	<ul style="list-style-type: none">• Bowel chart• Rectal examination• Toileting regime• Review medication• Diet/hydration• Exercise

Bowel Assessment

Patient assessment

Ask the patient about the bowel problem.

Consider the following:

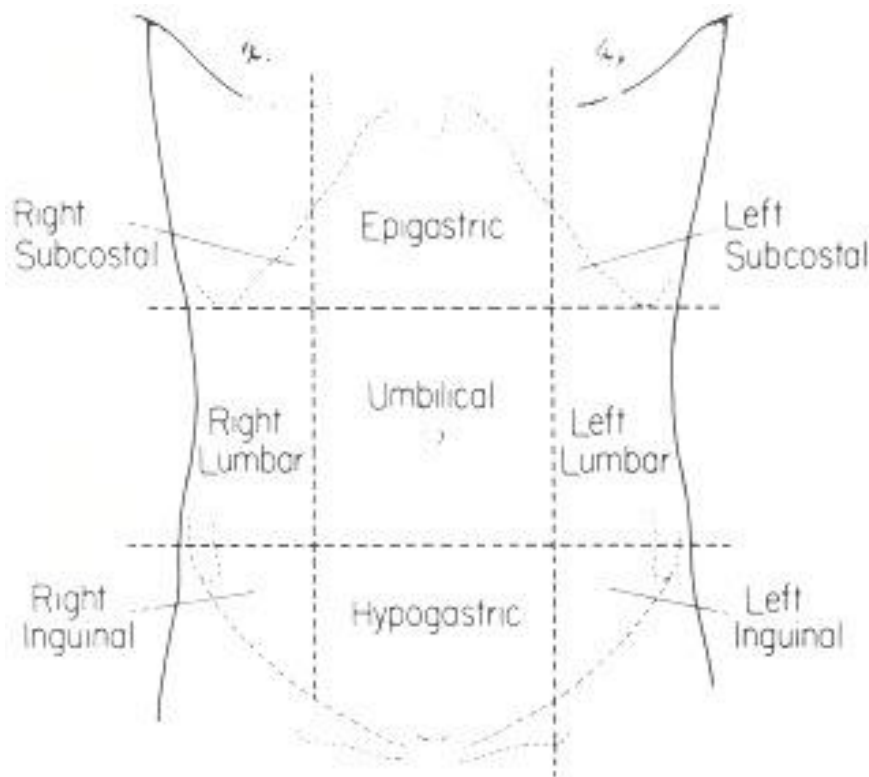
- The main symptoms and how they bother the patient;
- Normal bowel habit;
- Stool consistency (use the Bristol Stool Chart – see Fig 1);
- Colour and smell of stool and presence of mucus, blood or undigested food;
- Pain on defecation;
- Problems with control – urgency to open bowels with bowel accidents, incontinence of faeces without being aware or flatus incontinence;
- Bloating;
- Abdominal pain;
- The need to undertake certain manoeuvres to help empty the bowel, for example, supporting the perineum, manual evacuation;
- Incomplete emptying - not feeling as if they have completely emptied the rectum but cannot empty any more;
- Straining to pass a stool;
- Effects on sexual function;
- Coping strategies – such as toilet mapping(planning journeys based on where toilets are), staying near toilets, using toilet substitutes, appliance use and containment.

Bowel Assessment (cont.)

Assessment of diet and fluids

- Fibre content – too much or too little;
- Amount of wheat products – possible intolerance;
- Spicy foods – increase gut motility;
- Supplementary diets – may cause diarrhoea;
- High in fat – may increase gut motility;
- Trigger foods;
- Milk – possible intolerance;
- Coffee, diet drinks, sports drinks, excess alcohol – may increase gut motility, giving a loose stool.

Auscultation of the Anterior Abdominal Wall



- Position patient in the supine position.
- Use the stethoscope to listen over several areas of the abdomen for the presence of bowel sounds.
- When bowel sounds are not present, listen for a full 3 minutes before determining that bowel sounds are absent.
- Palpate after auscultation as this can falsely increase the presence bowel sounds.

Digital Rectal Examinations

**100% of the attendees agreed that DRE
and manual evacuation were nursing
roles.**

RCN Congress 2017

DRE Procedure

- Consent and lie patient in the left lateral position with knees flexed.
- Wash hands and use PPE. Lubricate gloved index finger.
- Observe anal area for: soreness, excoriation, swelling, haemorrhoids, rectal prolapse or infestation.
- Palpate the perianal area from 12 o'clock clockwise to 6 o'clock and then from 12 o'clock anti-clockwise to 6 o'clock. Note irregularities.



DRE Procedure (cont.)

- Prior to insertion ask patient to breath out or place finger on anus for a few seconds. Insert finger and assess anal sphincter control; resistance should be felt.

Anal tone present but with no awareness of fullness / unable to initiate or inhibit defecation = Reflex Bladder / Anal tone absent = Flaccid Bladder

- With finger in anus sweep clockwise then anti-clockwise. Note irregularities and the consistency of any faecal matter felt.
- Clean anal area after procedure, document findings and liaise with the MDT.

Dougherty *et al.* (2015)

Medication

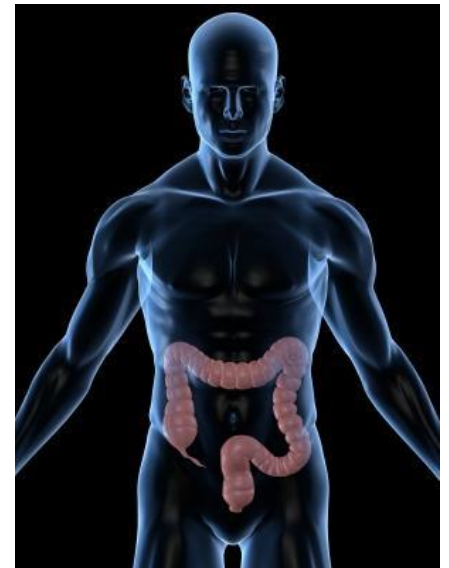
Bulk Forming (Fybogel)	Stimulant (sodium docusate, senna, glycerin suppository)	Osmotic (lactulose, macrogol, phosphate enema)
<ul style="list-style-type: none">• Increases faecal mass which stimulates peristalsis• Useful with type 1 stool• Take with plenty of water	<ul style="list-style-type: none">• Increases intestinal motility• Can cause diarrhoea in excess	<ul style="list-style-type: none">• Increases the amount of water in the colon either from the body or water administered.• Take with plenty of water

Gastrocolic reflex

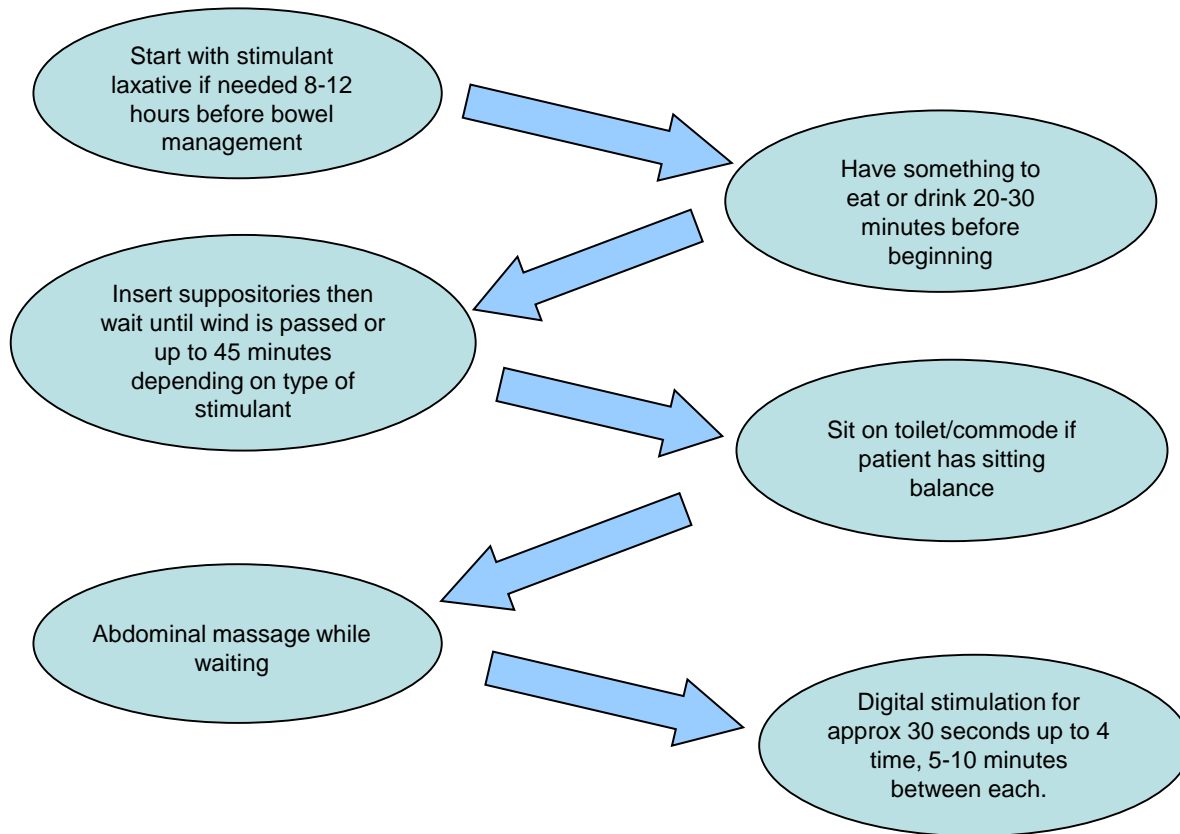
- Reflex response to food or drink entering the stomach.
- Results in an increase in muscular activity throughout the gut which can result in movement of stool into the rectum.
- Response may be reduced or absent in individuals with spinal cord injury.
- Commence bowel care 20-30 minutes after food or warm drink.
- Response is strongest after breakfast!

Abdominal massage

- Massage abdomen following the lie of the colon.
- Technique helps to promote peristalsis, thus moving stool into the rectum and relieving flatulence.
- Use while waiting for suppositories/enema to work.



Example of a Management Plan



Summary

- FI is common but may be transient.
- Undertake a bowel assessment to determine cause of constipation / faecal incontinence.
- Consider the type of laxative required.
- Trial toileting regimes dependent on individual patient needs.

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