

# Lenus: Research Repository



## Neurogenic bladder

Item Type	Presentation
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Download date	2026-05-21 04:15:01
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# Neurogenic Bladder

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# Neurogenic Bladder & bowel

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Overview of this session:

Discuss what is a neurogenic bladder

Look at the causes

Look at assessment, management  
options

# What is Neurogenic Bladder



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- Dysfunction of the bladder due to damage to the central and /or peripheral nervous system

Al-Shukri (2012) National institute for Health and Clinical Excellence, (NICE) (2012)



# Over view of nervous system effecting the bladder

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Several muscles and nerves must work together for the bladder to hold urine until the individual is ready to empty it.

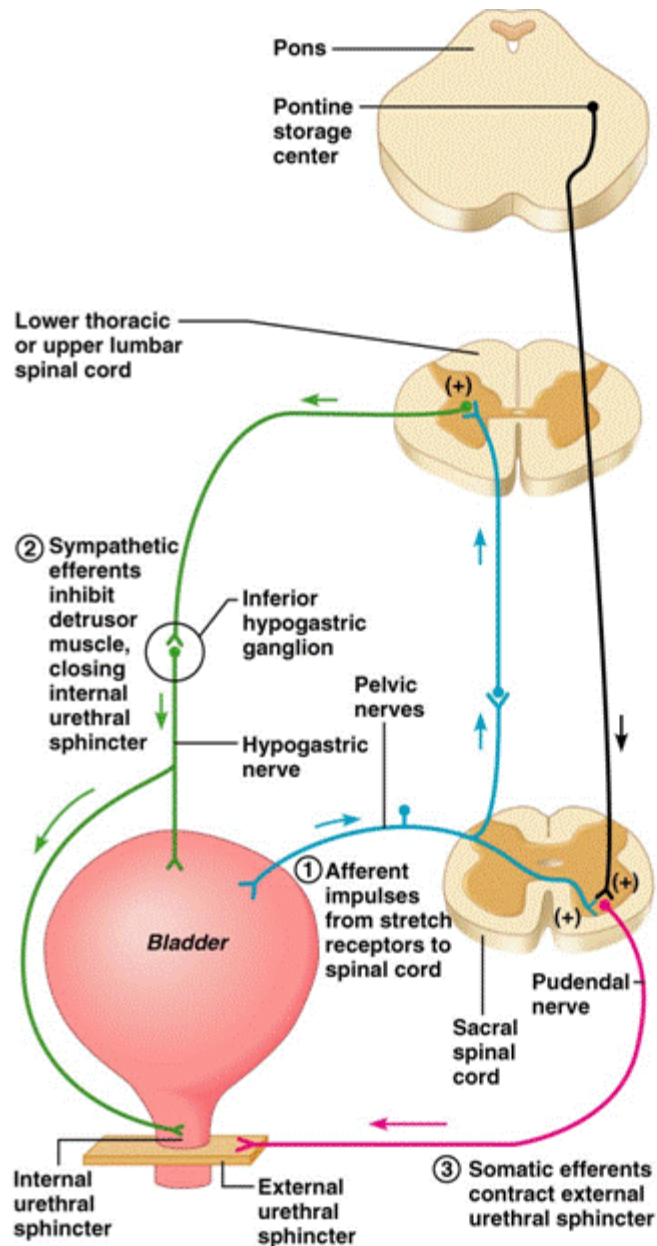
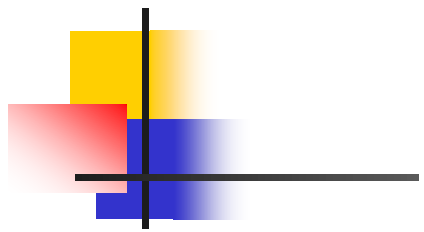
- The central and peripheral nervous systems regulate the nerve messages between the brain and the muscles that control bladder emptying
- In the Central Nervous System – micturition /pontine centre governs bladder control.
- Sacral 2 - Sacral 4 via pelvic nerve governs bladder contraction



# Over view of nervous system effecting the bladder

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- Thorax11- Lumbar 2 increase bladder size for storage.
- Sacral1 and Sacral 4 via pundental nerve supplies external urethral sphincter.
- Damage to pontine/ micturition centre causes loss of urge and control and causes incontinence
- Damage to these nerves through illness or injury, may result in the muscles not being able to tighten or relax at the right time (NICE 2012)



**Key:**

(+) Excitatory synapse

(-) Inhibitory synapse

— Visceral afferent

— Sympathetic

— Somatic efferent

— Parasympathetic

— Interneuron

**(a) Storage reflexes**

# Classification of Neurogenic Bladder



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- Flaccid
- Spastic
- Mixed



# Flaccid Bladder

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- Damage to the lower motor neurone system affecting the peripheral nervous system (pelvic and pudendal) or spinal cord at level S2-S4
- Leads to too little muscle activity or flaccidity of the bladder.
- In this condition the bladder volume is large, pressure is low, and contractions are absent (Shenot 2012)



# Spastic Bladder

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- Due to upper motor neurone damage affecting the central nervous system (brain and spinal cord)
- This causes over activity of the muscle leading to spasticity of the bladder
- The individual is unable to inhibit micturition effectively.
- An excess of muscle activity (detrusor hyper-reflexia) will lead to an increased urge to void.
- May be accompanied by urge incontinence  
(Shenot 2012 ,Bardsley 2000)



# Mixed

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- Mixed patterns (flaccid and spastic bladder) may be caused by many disorders,
- Diabetes mellitus
- Syphilis
- Brain or spinal cord tumours.

(Royal College of Physicians 2008)

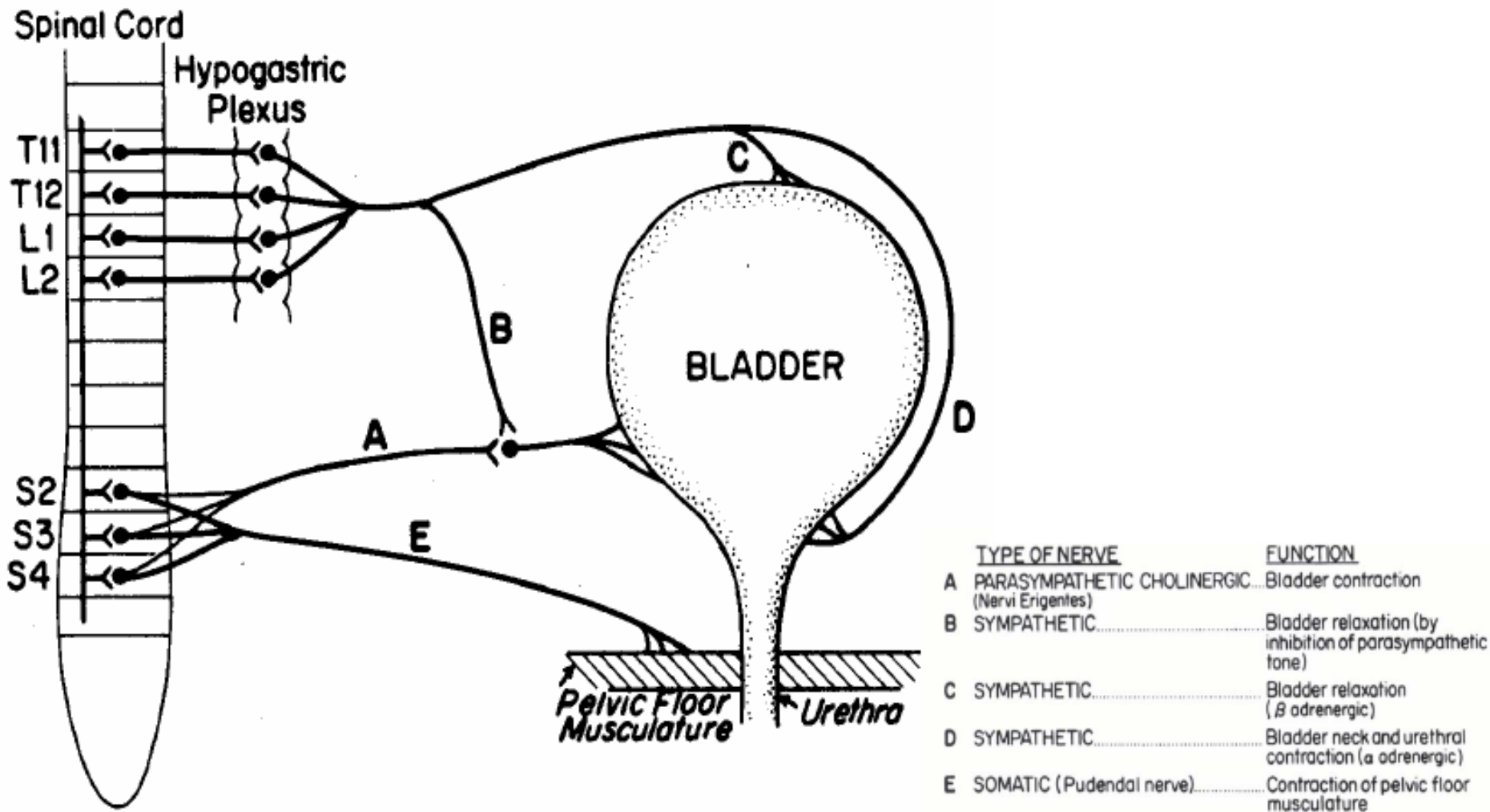


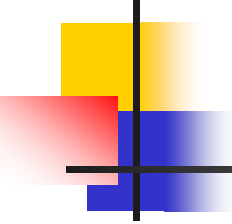
# Causes

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- Disorders of the Central Nervous System.
- Damage or disorders of the nerves that supply the bladder.

# Nerves & Micturition



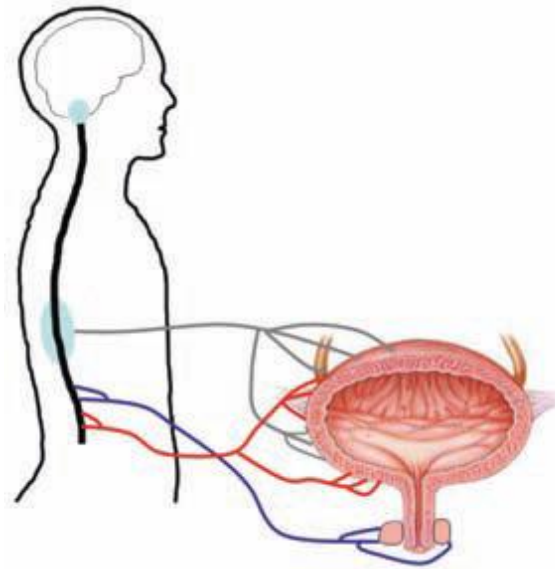


# Disorders of the Central Nervous System

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- Alzheimers Disease
- Dementia
- Brain or spinal cord tumors
- Cerebral palsy
- Encephalitis
- Multiple sclerosis
- Parkinson's disease
- Spinal cord injury
- Stroke recovery

# Diagram of the Neuronal Pathways that Regulate the Lower Urinary Tract





# Damage or disorders of the nerves that supply the bladder

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- Diabetic neuropathy (peripheral nerve damage due to long-term diabetes)
  - Peripheral nerve damage due to pelvic surgery
  - Nerve damage from a herniated disc
  - Alcoholic neuropathy (nerve damage due to long-term, heavy alcohol use).
- (NICE 2012, Wein&Dmochowski 2011)



# Symptoms

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- Depends on the cause and can result in impaired urine storage (overactive) or bladder emptying difficulties (underactive)

(NICE2012)

# Symptoms of Overactive Bladder



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- Having a sudden urge to pass urine frequently.
- Having to urinate small amounts very often.
- Problems emptying all the urine from the bladder
- Loss of bladder control .

( Wein& Dmochowski 2011)



# Symptoms of underactive bladder

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- Inability to tell when the bladder is full.
- Bladder becomes too full without any prior prompt for the need to empty. May leak urine when bladder is over full.
- Problems starting to urinate or emptying all the urine from the bladder.
- Urinary retention.

(Wein & Dmochowski 2011)



# Assessment

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Assessment of individuals with neurological problems needs to confirm whether:

- There is a failure of the bladder to empty,
- There is a failure of the bladder to store urine .(Bardsley 2000)



# Assessment

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- Clinical and medical history.
- Urinary tract symptoms. Use of Frequency Volume Chart /Bladder diary
- A bladder scan undertaken to measure post void residue volume
- Bowel symptom
- Neurological symptoms and diagnosis (if known)
- Clinical course of the neurological disease.



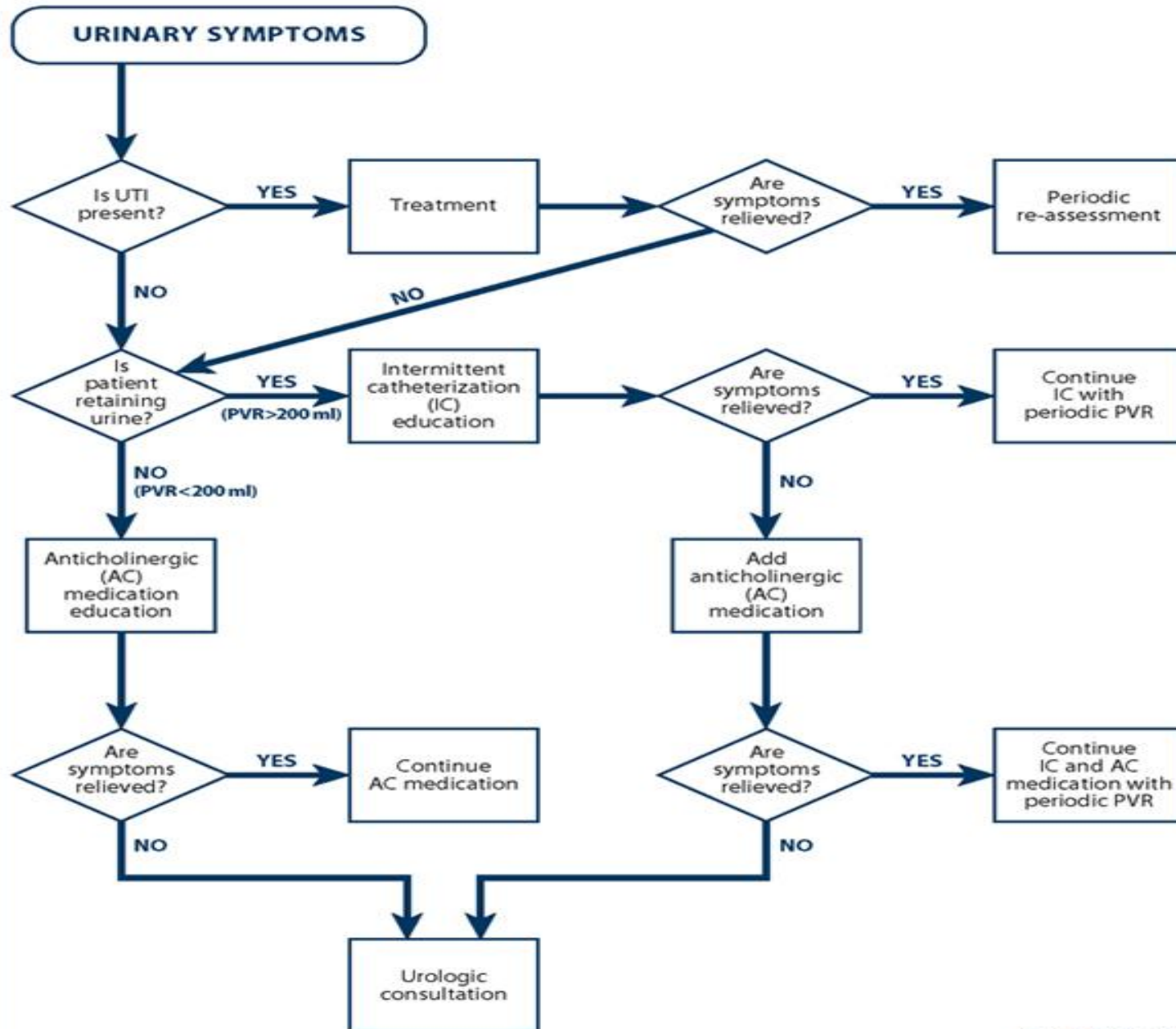
# Assessment

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- Cognitive ability.
- Mobility.
- Dexterity.
- Co morbidities
- Use of prescription and other medication.

(NICE 2012)

## Algorithm for Analysis and Management of Bladder Symptoms



# Management

## Overactive Bladder



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- Ensure individual has **1.5 -2 liters of fluid** per day unless medical contraindicated, this can include water, milk.
- Keep **caffeine** containing drinks to a **minimum** as caffeine is an irritant to the bladder lining (caffeine drinks are coffee, tea, green tea, coke and fizzy drinks).
- **Bladder retraining** – gradually increasing the time between voiding is an effective and safe way of improving an `overactive bladder.(Bardsley 2000)
- **Prompt and timed voiding** for individuals with impaired cognitive ability (Nice2012)
- Encourage **pelvic floor muscle exercises.**



# Management Overactive Bladder

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- **Anti-cholinergic drugs –**  
Anti-cholinergic drugs inhibit the action of acetylcholine, so reducing the contractions of the detrusor muscle. Compliance may be affected due to side effects  
*Side effects –*  
dry mouth, constipation. (Nice 2012)
- **Appropriate containment products.** needs to have a continence assessment prior to prescribing containment products (HSE West, Galway ,Mayo, Roscommon 2010)

# Management

## Underactive Bladder and voiding difficulties

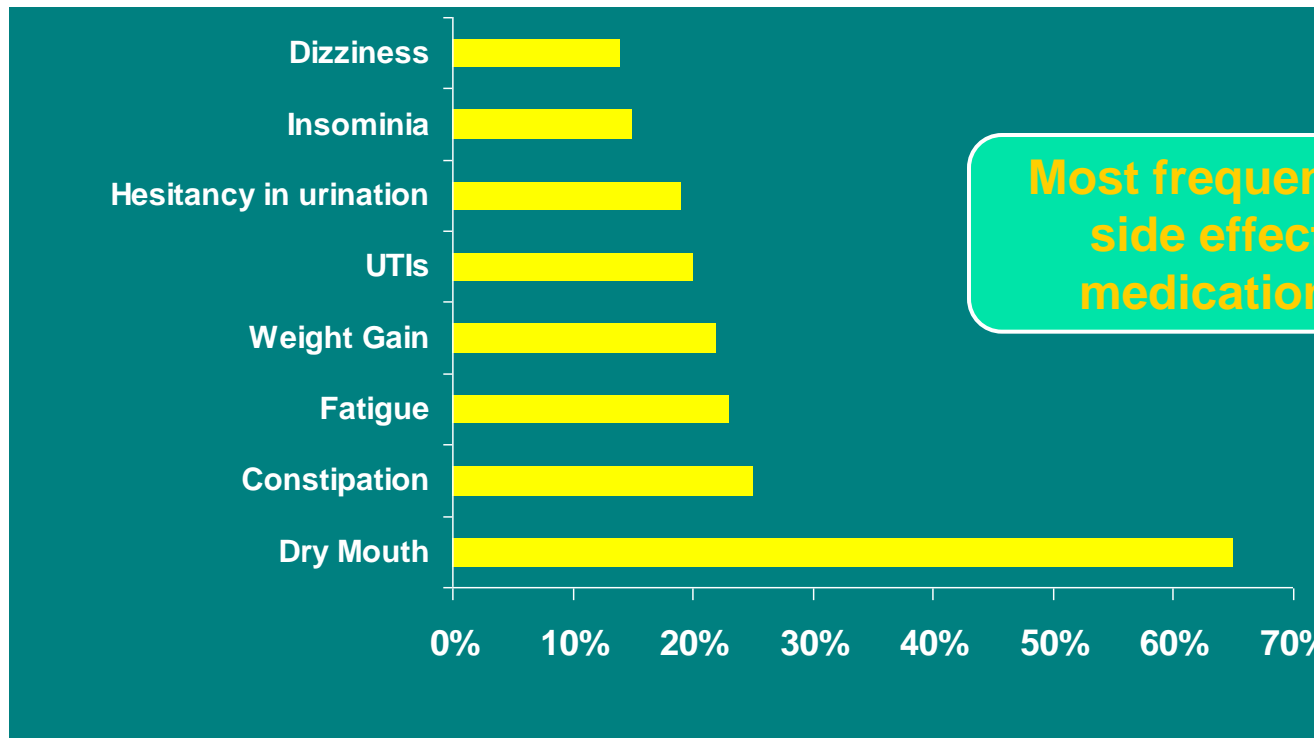
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- Immediate continuous or intermittent catheterisation

Drainage of the bladder by intermittent or continuous catheterisation is needed for a flaccid bladder, especially if the cause is an acute spinal cord injury.

# OAB: Antimuscarinic treatment

- **With over 7 choices of medications to choose from, many patients will likely discontinue their therapy or choose alternate care providers due to poor persistence and adherence**
- **Associated discontinuation rates with incontinence medications is exceptionally high due to adverse events**



**Most frequently reported side effects of OAB medications (n=606)**



# Advantages of Intermittent Catheterisation

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- Fewer infections
- Reduced equipment needs
- Greater independence.
- Reduced risks of
  - Urethritis,
  - Periurethritis,
  - Prostatic abscesses
  - Urethral fistulas

(SARI 2011).



# Advantages of Intermittent Catheterisation

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Patient (or carer) must be able and willing to perform the procedure, so it may not always be practical in a Nursing Home setting.

(Buckley & Grant 2009)

Suprapubic catheterisation may be used if patients cannot self-catheterise.

# Management

## Underactive Bladder and voiding difficulties

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### **Trigger Voiding**

Individuals who can retain normal volumes can use *techniques to trigger void* -

- Applying supra pubic pressure,
- Scratching the thighs
- For those individuals with sufficient mobility/dexterity *double voiding* can be used. This involves sitting back down on toilet, 1-10 minutes post micturition or leaning forward on the toilet post voiding to help empty the bladder.

( Buckley & Grant 2009)



# Other Management Options

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## ***Botox Injections***

- Injection of botulinum toxin type A (Botox) into the bladder wall is recommended for individuals who fulfill all three of the following criteria:
  - Underlying spinal cord disease.
  - Overactive bladder.
  - Medical therapy with anticholinergic drugs, which is either unsuccessful or not tolerated.
    - Repeat injections may be necessary.
    - Catheterisation may be necessary after the procedure, as retention can occur.
    - Residual volume and renal function may need to be monitored.(NICE 2012)



# Other Management Options

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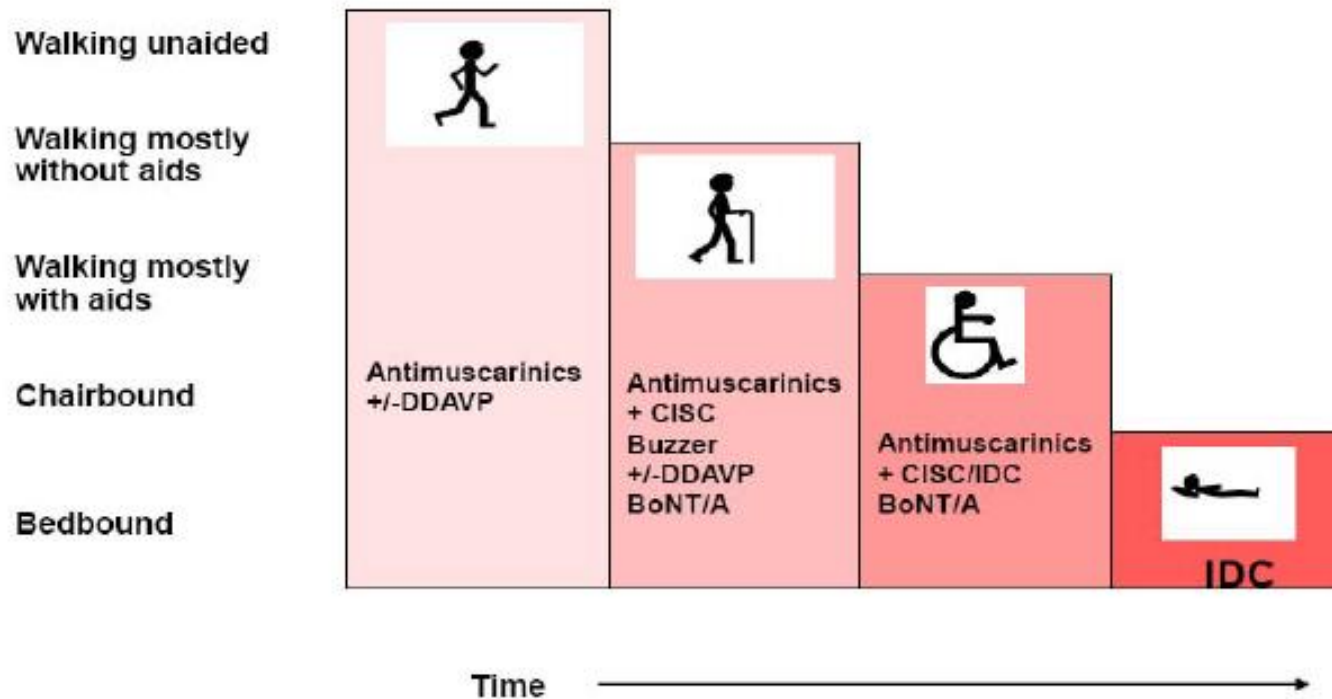
## ***Surgery***

*This is a last resort.*

- Indicated for individuals if social circumstances, spasticity or quadriplegia prevent use of continuous or intermittent bladder drainage
  - Sphincterotomy (for men) converts the bladder into an open draining conduit.
  - Sacral (S3 and S4) rhizotomy converts a spastic bladder into a flaccid bladder.
  - Bladder augmentation - also called augmentation cystoplasty - enlarging the bladder storage capacity using intestinal sections.
  - Urinary diversion may involve an ileal conduit or ureterostomy.
- (NICE 2012)

# Bladder management options for with progression of disabilities (Fowler et al 2009)

Progression of MS and treatment options for bladder management





# Complications

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- Reduced quality of life - with social isolation and embarrassment.
- Increased frequency of urinary tract infections (UTIs) and urinary calculi.
- Kidney damage may occur (nephropathy) if the bladder becomes too full, causing pressure to build up in the urethers and in the kidneys themselves.
- Skin break down and pressure sores due to constant urine leakage.
- Bladder cancer.
- Patients with high thoracic or cervical spinal cord lesions are at risk of autonomic dysreflexia



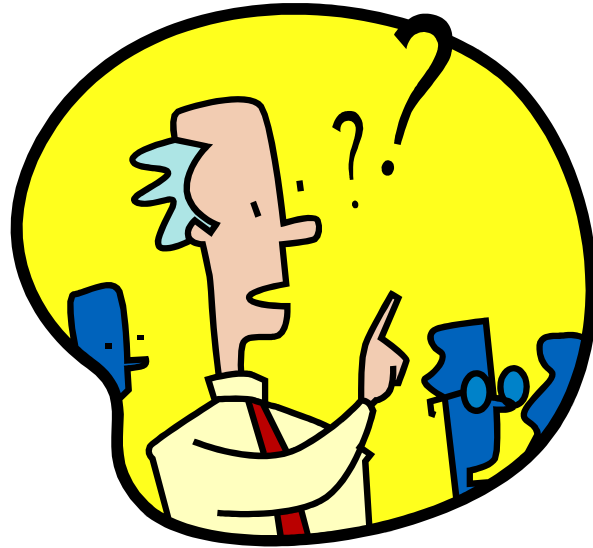
# Co-morbidities Associated with Neurogenic Bladder

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- **Lower UTI Upper UTI**
- **Sepsis/**
- **septicaemia**
- **Urinary**
- **retention**
- **Obstructive**
- **uropathies**
- **Acute renal failure**
- **Renal failure other than acute**
- **Haematuria**
- **Constipation**

Thank You  
Any Questions?

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# References

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Al-Shukri S (2012) '*Neurogenic Bladder –Assessment, Investigation and Treatment*' *European Urology Review* 2012; 7 (1) 55-60

Bardsley A (2000) *The neurogenic bladder* *Nursing Standard* 14, 22, 39-41.

*British National Formulary* (2008): Web based British National Formulary number 55, March .

Buckley B, Grant AM *What is the most effective management of neurogenic bladder dysfunction?* *BMJ*. 2009 Mar 12;338:b659. doi: 10.1136/bmj.b659.

HSE West 2010 *Giudeline The Promotion of Continence and the Managementof Incontinence* Public Health Nursing Services(Galway,Mayo, Roscommon unpublished.

Multidisplinary Association of Spinal Cord Injured Professionals (MASCIP) (2012)*Guidelines for Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions*. Spinal Cord Injury Centres: UK and Ireland.



# References

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National Institute for Clinical Excellence (2012) *'Urinary Incontinence in Neurological Disease; Management of Lower Urinary Tract Dysfunction in Neurological Disease* CG148.London

Royal College of Physicians (March 2008) *Long-term neurological conditions - management at the interface between neurology rehabilitation and palliative care*, London.

The Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) 2011 *Guidelines for the Prevention of Catheter Associated Urinary Tract Infection in Irish Health Care Settings*. HSE Health Protection Surveillance Centre.

Shenot,P.J (2012) *Neurogenic Bladder: Voiding Disorders* MERCK  
Wein & Dmochowski (2011) Neuromuscular dysfunction of the lower urinary tract. In: Wein AJ, Karoussi LR, Novick AC et al. Ed Cambell-Walsh Urology 10th Ed, Philadelphia, PA: Saunders Elsevier: 2011 Chap 65

**S.P Management in M.S. pts**

- Understand why necessary
- Longterm use, comfort in wheelchair
- Chronic retention, reflux, abnormal renal function
- Failure of I.S.C. anticholinergics
- Skin integrity

- Positioning, prevent kinkage, rotate catheter
- Leg bag and catheter well supported
- Urine has to drain more upwards and sideways
- Prevent constipation
- Adequate fluid intake crucial
- Prevent infections

- Calculi more common in S.P. encrustation
- Frequent infections
- Sedimentation, prone to blockage
- Bladder spasm can expel cath.
- Avoid trigger spasms
- Bypassing of urine
- SUBG washouts to keep urine less alkaline, dipstick

- Prophylactic antibiotics with regular review and sensitivity
- Change 4-6 weekly 16f/18F maybe more frequently
- Use of flip flow valve
- Keep site uncovered, wash with soap and water
- Urine should be always light coloured

- Silicone and Hydrogel less likely to encrust
- Avoid trauma when removing, fully deflated balloon etc.
- Perforation of bowel, fistula etc rare problems
- Test urine but will always be some colonization of bacteria

# Neurogenic Bowel



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# Aims of Session

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- Discuss what is a neurogenic bowel
- Look at the causes
- Look at assessment
- Look at management options

# Definition of Neurogenic Bowel

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- ❑ Dysfunction of the colon e.g. constipation, faecal incontinence and disordered defaecation.
- ❑ Due to loss of normal sensory and motor control, caused by Central Nervous System/ Spinal Cord injury, damage or disease

(Multidisciplinary Association of Spinal Cord Injured Professionals, MASCIP 2012)

# Definition con't

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- ❑ Any damage to brain or spinal cord that interrupts the neural pathways that control colon, ano-rectal angle will result in neurogenic bowel dysfunction
- ❑ Its impact on bowel dysfunction depends on location and severity, permanency of lesion or injury

# Types

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There are ***two types*** of neurogenic bowel

□ ***Areflexic (flaccid) Bowel***

□ ***Reflexic (Spastic) Bowel***

# *Areflexic (flaccid) Bowel*

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- Spinal cord injury at the first level lumbar vertebra(L1) cause damage to Lower Motor Neurons
- There is an interruption in the reflex arc between the spinal cord and the bowel
- Modulation of colonic motor activity from the brain is lost--  
so peristalsis movements continue slowly and less effectively.

# *Areflexic (flaccid) Bowel*

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- External sphincter is de-nervated and flaccid
- Pelvic floor muscles flaccid
- Sigmoid colon and rectum sinks into pelvis.
- Reduced ano-rectal angle.
- Resulting in a high risk of faecal incontinence

# *Reflexic(Spastic) Bowel*

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- ❑ Spinal Cord Injury at the level of Thoracic vertebra12 (T12)/ Lumbar vetrebra1 (L1) or above - the upper motor neurons are damaged but the lower motor neurons are intact.
- ❑ Loss of impairment of sensory perception of the need for defaecation.
- ❑ Loss or impairment of voluntary control of the external anal sphincter.
- ❑ Intact reflex arcs maintain tone (reflex activity) in the anorectum.

# *Reflexic(Spastic) Bowel*

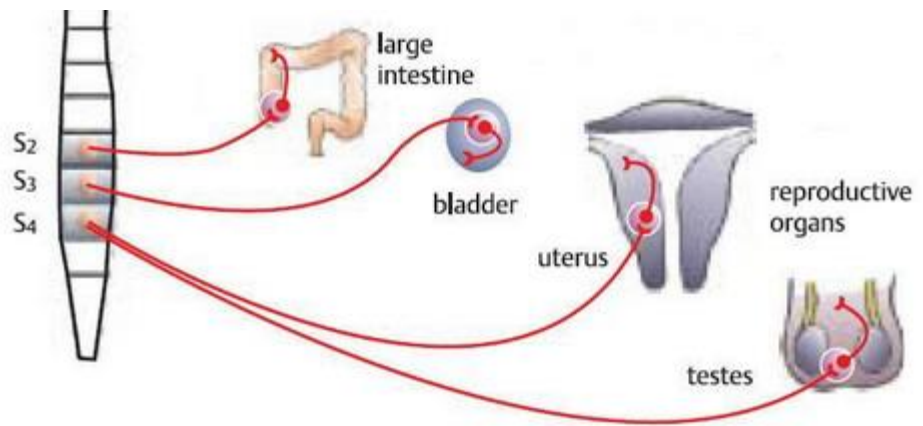
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- ❑ Tone in the external anal sphincter, colonic wall and pelvic floor, is increased resulting in reduced colonic compliance.
- ❑ Modulation of colonic motor activity from the brain is lost
- ❑ Peristalsis movements continues slowly and less effectively.

# *Reflexic(Spastic) Bowel*

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- ❑ Discoordination between relaxation of the anal canal and rectal contraction (recto-anal dyssynergia) can occur.  
Common in individuals with Parkinson 's disease.
- ❑ Constipation usually faecal retention or reflex uncontrolled evacuation of the rectum.
- ❑ The remaining reflex activity in the anorectum can be utilised to aid bowel management



# Causes:

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- Spinal Cord injury – Traumatic
- Spinal Lesions
- Multiple Sclerosis
- Parkinson's Disease
- Stroke
- Congenital abnormalities
- Medication / surgery / radiation

(MASCIP2012, Royal College of Nursing, RCN 2012,)

# Assessment

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- Identification of current management
  - triggers to stimulate the gastro- colic reflex,
  - use of abdominal massage
  - other developing management strategies

# Assessment

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- Current Medical or other Problems ?
- Nutritional Consideration
  - Fiber intake
  - Fluid intake
- Medication impact on bowel /bladder
- Level of activity/mobility/spasticity /balance

# Assessment

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- Level of independence and level of need for carer input
- Care Home circumstances –
  - availability of trained/skilled staff
  - need for home adaptations, equipment
- Manual handling risk assessment?
- Scheduling of bowel care location, frequency

# Assessment

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- ❑ Psychological and emotional factors
- ❑ Communication and cognitive ability.
- ❑ Can services within Home deliver the appropriate care
- ❑ History of abuse?

# Bowel Pattern / Problems

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- ❑ What is the current bowel pattern or problems?
- ❑ Bristol Stool Type?
- ❑ Incontinent episodes?
- ❑ History- what were the innate bowel/ Bladder habits ( prior to injury – disease)
- ❑ Medication – impact on bowel/ bladder
- ❑ How is bladder managed?

# Management:

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## **Aims of Management**

- ❑ Achieve regular and predictable emptying of the bowel at a socially acceptable time and place.
- ❑ Provide an effective routine that is acceptable to the individual, promoting autonomy, verbal and, where possible, physical independence
- ❑ Manage evacuation within a reasonable time.
- ❑ Optimise comfort, safety and privacy
- ❑ Avoid faecal incontinence
- ❑ Minimise or avoid constipation
- ❑ Avoid/minimise secondary complications

# Right Consistency of Faeces

## Diet

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### **Fibre**

- ❑ Encourages transit of stool through the colon.
- ❑ Recommend daily intake 18-25g/d.
- ❑ Any increase in fibre in the diet should be accompanied with an increase in fluids.

# Types of Fibre

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## □ *Soluble Fibre*

- Contained in fruit, vegetables,  
(promote '5 a day' portions in diet),

- oats

- Associated with lowering blood cholesterol and  
blood glucose levels,

## □ *Insoluble Fibre*

- Contained in wheat,maize, rice

- Bulks and softens stool,

# Right Consistency of Faeces

## Fluids:

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- Aim to have 1.5-2L of fluid per daily

# Right Consistency of Faeces

## Pharmacological Agents:

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### ❑ ***Rectal Stimulants.***

Used to trigger evacuation of bowel. Use gentlest one first.

❑ Glycerine suppositories—mild local lubricant and stimulus.

❑ Bisacodyl suppositories--- stimulant laxative to the rectal wall, increasing gut motility.

❑ Small volume enemas (microenemas) e.g. Micralax ,norgalax local bulking that can stimulate bowel, acts as a lubricant

(BNF2008)

**Type 1**



Separate hard lumps, like nuts (hard to pass)

**Type 2**



Sausage-shaped but lumpy

**Type 3**



Like sausage but with cracks on the surface

**Type 4**



Like smooth sausage, smooth and soft

**Type 5**



Soft blobs with clear-cut edges (passes easily)

**Type 6**



Fluffy pieces with ragged edges, a mushy stool

**Type 7**



Watery, no solid pieces, entirely liquid

## Bristol Stool Chart

# Right Consistency of Faeces

## Pharmacological Agents:

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### ***Oral Laxatives.***

60% of individuals with Spinal cord injury use oral laxatives.

- ❑ Stimulants---increase bowel activity and peristalsis (senna,bisacodyl)
- ❑ Stool Softeners Increases water penetration in the bowel (dioctyl).
- ❑ Osmotics (Polyethylene glycol/Movicol ,Lactulose)
- ❑ Bulk Forming Laxatives increases faecal bulk and volume(ispaghula husks/Fybrogel)

(BNF2008)

# Right Place

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- ❑ **To get stool into rectum :**
- ❑ Oral laxatives a minimum of 8 hrs prior to evacuation.
- ❑ Rectal stimulants (suppositories, microenema) 20-30 mins prior to evacuation
- ❑ Use of the gastro-colic reflex - 30 min prior to planned bowel care. This is a reflex response to the introduction of food and/or fluid into the stomach which results in an increase in muscular activity throughout the gut and can result in movement of stool into the rectum ready for evacuation.(MASCIP2012, RCN2012)

# Right Consistency of Faeces

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Aim for:

- *Reflex Bowel* -  
Bristol Scale 4 stool
  
- *Areflexic (flaccid) Bowel*  
Bristol Scale 2/ 3 stool

# Triggers/Assistive Techniques

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## □ **Gastrocolic Reflex**

- A reflexic response to the introduction of food and/or drink into the stomach
- Resulting in an increase in muscular activity throughout the gut (Harari 2004)
- Can result in movement of stool into the rectum ready for evacuation
- Have food and/or drink 15 - 30 minute prior to commencing other bowel management
- Usually strongest after the first meal of the day but can be stimulated by eating and drinking at any time

# Triggers/Assistive Techniques

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## □ **Abdominal massage**

- Rubbing or running the back or heel of hand firmly over the abdomen
- Following the usual lie of the colon in a clockwise motion from the lower right side across the top and down the left side
- Helps move the stool through the rectum.
- Helps stimulate peristalsis

# Triggers/Assistive Techniques

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## □ Positioning

- Sitting upright in a cushioned commode chair or padded toilet seat may help gravity to empty the lower bowel.
- Placing the feet on footrests or foot stool also will give support whilst bearing down.

# Triggers/Assistive Techniques

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## ▣ **Valsalva Manoeuvre/Straining**

- Valsalva manoeuvre or 'straining' involves forcibly attempting to exhale against a closed glottis (Weisel&Bell 2004).
  - This technique results in a rise in intra abdominal pressures and therefore intra rectal pressure.
- A very short episode of straining at the beginning of bowel evacuation can be considered as part of the normal physiology of defaecation (Pocock and Richards 2006).
- Excessive straining can cause severe renal and cardiovascular complication
  - Implicated in the development of haemorrhoids and rectal prolapse
- In patients with Parkinson's disease, and Multiple Sclerosis straining can result in paradoxical sphincter contraction or 'anismus and contributes to problems with stool expulsion and constipation. (Sakakibara et al 2010)

# Outline Management Reflex bowel

(Mascip 2012)

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Daily or alternate day at a regular time

Attention to diet

Stool consistency Bristol Scale 4

Stimulant laxative 8-12 hours before planned bowel care

Hot drink and/or food 20-30 minutes before bowel care

(Gastrocolic reflex)



Insert suppositories/enema



(Abdominal Massage)



Digital Rectal Stimulation (DRS)



Digital removal of faeces (DRF) if required



Digital rectal examination to check if rectum complete 5-10 minutes post last stool

# Outline Management Arreflexic (flaccid)

## Bowel

(mascip2012)

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Daily or twice daily at regular times

Attention to diet

Regular medication for stool consistency if required

Stool consistency Bristol Scale 2-3

Stimulant laxatives 8-12 hours 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  
5-10 minutes post last stool

# Other Management Options

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## **Trans-anal irrigation** (Peristeen®)

- ❑ Water (or other liquids) passed into the bowel via the rectum to evacuate the lower bowel of its content
- ❑ .
- ❑ Reduces the incidence of faecal incontinence and constipation.
- ❑ Can help to Improve quality of life
- ❑ Needs to be performed upright over the toilet
- ❑ Small risk of bowel perforation
- ❑ Has to have Consultant prescribed and taught/monitored by health professional.

# Documentation

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Following *each care episode* objectively *record* in care plan:

- ❑ Any episodes of faecal incontinence:
- ❑ Episodes per day, timing of episodes in relation to bowel care e.g. 2 hours post bowel care, completed after a meal.
- ❑ Duration of bowel management episodes.
- ❑ Stool form as described by the Bristol Stool Form Scale
- ❑ Result – was stool evacuated?

# Documentation

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The following should be *recorded* in relation to the

- ▣ Individual's ***bowel management programme***:
  - Frequency of bowel care e.g. daily/alternate days
  - When: time of day that bowel care takes place
  - Where: location where bowel care takes place e.g in bed, over a toilet/commode
  - Equipment required e.g. shower chair with aperture at the back
  - Use of rectal stimulants (type, amount and timing in relation to bowel care episode)

# Other factors to consider

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- ❑ Condition of anal area
  - Haemorrhoids,
  - Anal fissure
  - Rectal bleeding etc
- ❑ Abdominal symptoms
  - bloating, nausea, loss of appetite, pain
- ❑ Changes: to any part of the bowel management programme
- ❑ Autonomic symptoms and Autonomic Dysreflexia episodes in relation to bowel care
- ❑ Referral: to Specialist/GP, date of referral and reason

# Long term patients must have

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- ❑ Documented bowel function assessment  
bowel management plan
- ❑ Re-evaluated *at least* annually.  
(MASCIP 2012)

# Evaluation of Current Bowel Management programme

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- ❑ Is there regular, predictable defaecation, at time and place that is socially acceptable and suit the life style of the patient?
- ❑ Is there an establish bowel pattern and is it documented in care plan as per the Bristol Stool Type?
- ❑ Is everyone using the same care plan?

# Evaluation of Current Bowel Management programme

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- Is it effective/adaptable?
- Is it reviewed/updated regularly?
- Does it prevent neurogenic bowel complications?

# Impact and Complications of Neurogenic Bowel

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## **Reduced Quality of Life:**

- ❑ Loss of independence
- ❑ Social isolation (Emmanuel 2010),
- ❑ Curtailing of everyday activities
- ❑ Prolonged time involved in evacuation process
- ❑ Fear of faecal incontinence

(MASCIP2012, RCN2012)

# Impact and Complications of Neurogenic Bowel

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## **Faecal Incontinence**

- ❑ The involuntary loss of flatus, liquid or solid stool that is a social or hygienic problem”  
(Norton et al 2009)
- ❑ Deeply distressing problem due to the social unacceptability
- ❑ Common among individuals with central neurological conditions.
- ❑ Contamination from stool may lead to an increase in urinary tract infections.
- ❑ Increase risk in skin breakdown and pressure ulcer formation.  
(MASCIP2012, RCN2012)

# Impact and Complications of Neurogenic Bowel

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## **Constipation:**

- ❑ Common in neurogenic bowel dysfunction.
- ❑ Causes rectal and abdominal pain and discomfort.
- ❑ Bloating
- ❑ Painful defecation.
- ❑ Difficulty with evacuation.
- ❑ Straining at stool
- ❑ Prolonged evacuation
- ❑ Sensation of incomplete evacuation
- ❑ Faecal incontinence. (MASCIP2012)

# Impact and Complications of Neurogenic Bowel

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## □ **Faecal impaction**

- Copious formed stool in the colon (not just the rectum)
- Stool not progressing through the colon or cannot be expelled from the rectum.
- Common in neurogenic bowel dysfunction.
- Is a complication of constipation.
- If not treated can cause an obstruction of the bowel
- Symptoms may include absent or reduced evacuation of stool for a longer period than usual

# Faecal Impaction

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- Abdominal bloating or distension,
- Nausea and pain.
- Faecal soiling.
- May be accompanied by 'overflow' or 'spurious' diarrhoea where looser stool leaks around an unmoving faecal mass
- Breathlessness individuals in high level SCI with compromised respiratory function due to reduced diaphragmatic excursion.
- Stool will usually be Bristol Scale 1-2 or soft-impaction with putty-like stool may occur. (Coggrave and Emmanuel 2010).
- Autonomic dysreflexia

# Impact and Complications of Neurogenic Bowel

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## □ **Haemorrhoids:**

- An inflammation and swelling of veins in the anal cushions, a highly vascular area of tissue just inside the anus.
- Sometimes they protrude through the anus
- Eventually can interrupt the seal of the closed anus.
- Common in neurogenic bowel dysfunction

# Associated with

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- ❑ Chronic constipation
- ❑ Straining at passing a stool.
- ❑ Prolonged toileting.
- ❑ Chronic diarrhoea

# May cause

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- ❑ Bleeding (bright red)
- ❑ Discomfort and pain on defecation or evacuation
- ❑ Itching and irritation (due to protruded or prolapsed haemorrhoids)

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Click to **LOOK INSIDE!**

Your Gut Has a  
Mind of Its Own

# The Second Brain

A Groundbreaking New Understanding  
of Nervous Disorders of the  
Stomach and Intestine

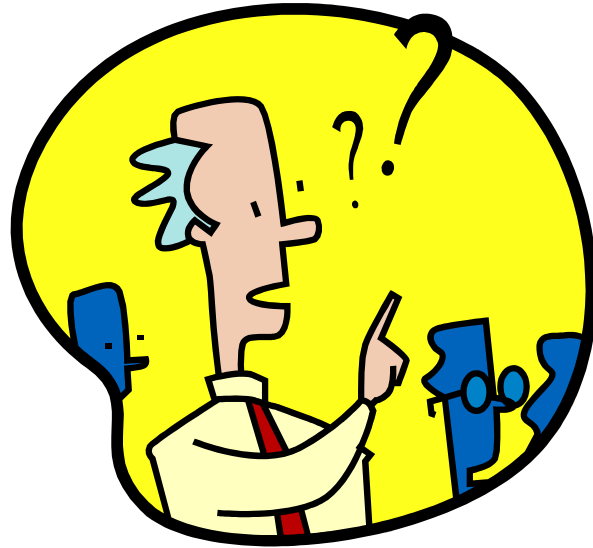
"Persuasive, impassioned . . . hopeful news [for those]  
suffering from functional bowel disease."

— *The New York Times*

Michael D. Gershon, M.D.

Thank You  
Any Questions?

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# Reference

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- British National Formulary* (2008): Web based British National Formulary number 55, March.
- Coggrave M, Emmanuel A. 2010: '*Neurogenic bowel management*' in Fowler C, Panicker J, Emmanuel A. Eds.  
Pelvic Organ Dysfunction in neurological disease; Cambridge Medicine, Cambridge University Press.
- Cosman BC, Vu TT. (2005): *Lidocaine anal block limits autonomic dysreflexia during anorectal procedures in spinal cord injury: a randomized, double-blind, placebo-controlled trial* Dis Colon Rectum. Aug;48(8):1556-61.
- Emmanuel, A., 2010: *Managing neurogenic bowel dysfunction* Clinical Rehabilitation, 24, pp483- 488.
- Harari D. (2004): *Bowel care in old age*. In: NortonC, Chelvanayagam S, editors. Bowel Continenc Nursing. Beaconsfield, England: Beaconsfield Publishers; Pg.132-49
- Harari, D. & Minaker, K. (2000): *Megacolon in patients with chronic spinal cord injury* Spinal Cord. 38 6, 331-339.
- Multidisciplinary Association of Spinal Cord Injured Professionals  
HSE (2013) *National Consent Policy*. Dublin: Health Service Executive, Quality and Patient Safety Directorate.HSE 3013

# References

---

- Norton C, Whitehead WE, Bliss DZ, Harari D, Lang J. (2009): *Conservative and pharmacological management of faecal incontinence in adults*. In: Abrams P, Cardozo L, Khoury S, Wein A, editors. *Incontinence*. Plymouth: Health Publications:Pg 1321-1386.
- Pocock G, Richards C. (2006): *Human Physiology; The Basis of Medicine*. Second Revised Edition. Oxford University Press Oxford.
- Royal College of Nursing (RCN) (2012) *Management of lower bowel dysfunction, including DRE and DRF guidance for nurses* London
- Sakikibara R, Fowler C, Takamichi H. 2010: '*Parkinson's Disease*' in Fowler C, Panicker J, Emmanuel A. Eds. *Pelvic Organ Dysfunction in neurological disease*; Cambridge Medicine, Cambridge University Press.
- Steggall, M.J., 2008: *Digital rectal examination*. *Nursing Standard*. 22 (47), pp. 46-48.

# References

---

Wiesel P, Bell S. (2004): *Bowel dysfunction: assessment and management in the neurological patient*. In: Norton C, Chelvanayagam S, editors. *Bowel continence nursing*. Beaconsfield, Bucks: Beaconsfield Publishers: pg.181-203.

HSE (2013) *National Consent Policy Dublin: Health Service Executive, Quality and Patient Safety Directorate*

(MASCIP) (2012) *Guidelines for Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions*. Spinal Cord Injury Centres: UK and Ireland.

NHS *Clinical Knowledge Summaries (CKS) 2011*:  
[http://www.cks.nhs.uk/anal\\_fissure#-314803](http://www.cks.nhs.uk/anal_fissure#-314803)