Introduction

- Dysfunction of the bladder and/or bowel is common after stroke and maybe caused by a combination of stroke-related impairments, (e.g. weakness, cognition or perceptual impairments).
- Urinary and faecal incontinence can be very distressing both physically and psychologically and impacts on quality of live and health.
- All people with bladder and/or bowel dysfunction should be managed using an organised functional approach to rehabilitation.
- Incontinence has been consistently identified as a major factor influencing placement of a patient in a long term care.

Bladder function

Normal bladder function involves:
- Voiding at 3 – 5 hourly intervals
- Nocturia 1 – 2 times/night.
- No urgency
- No dysuria
- No post void residual
- No incontinence.
Urinary Incontinence

- Definition – Any involuntary leakage of urine.
- In order to determine the most appropriate management strategy, it is useful to categorise incontinence according to its clinical characteristics.
- Urinary incontinence can be divided into five major groups:
  - Stress
  - Urge
  - Mixed
  - Overflow
  - Functional

Types of Urinary Incontinence and management strategies

- **Stress Incontinence** - Involuntary loss of urine associated with increased intra-abdominal pressure, such as coughing, sneezing/laughing, lifting, walking, jogging, change of position such as standing from the sitting/lying position and/or transferring and straining. Possible causes include childbirth, obesity, post surgery and chronic constipation and chronic cough.
- **Management** –
  - Weight reduction
  - Pelvic floor muscle exercise
  - Treat constipation and faecal impaction.
  - Treat chronic cough.
  - Review patient’s medications.

- **Urge Incontinence** – Also known as unstable bladder/Detrusor, Over active bladder. Involuntary loss of urine at unexpected times, associated with a strong desire to void (urgency), which may result in small volume of urine and/or total loss of bladder content. This is due to damage to the central nervous system, the brain is unable to inhibit the micturition reflex arc which is located at thoracic vertebral level 12. Symptoms include urgency, frequency, nocturia and nocturnal enuresis. Possible causes include Spinal cord injury, stroke, Parkinson’s Disease, Multiple Sclerosis and Syringomyelia.
- **Management** –
  - Exclude urinary tract infection
  - Treat constipation or faecal impaction.
  - Reduce caffeine and alcohol
  - Bladder training.
  - Review patient’s medications.
Types of Urinary Incontinence and Management Strategies

- Urinary retention with overflow – Continual small leakage of urine as a result of an over distended bladder. Symptoms include continual small amounts of urinary incontinence, as a result of an over distended bladder, frequency, urgency and nocturia. Causes of over distension of the bladder include: Outflow obstruction eg. urethral stricture, benign prostatic hyperplasia, constipation or underactive bladder as a result of damage to the central nervous system such as diabetic neuropathy or spinal cord injury and many medications may decrease detrusor contractibility eg. Anticholinergic agents, anaesthetic agents, Anti-depressants, ACE inhibitors and diuretics.

  - Management – Remove any outlet obstruction (referral for surgery)
    - Confirm diagnosis by urodynamics
    - Consider faecal impaction and consider treatment.
    - Review patient’s medications
    - Clean intermittent self – catheterisation.

- Functional Incontinence – Urinary incontinence as a result of the individual’s inability to cope/respond appropriately to their bladder function eg impaired mobility, decreased dexterity, impaired mental status and environmental issues such as distance to the toilet, poor lighting, poor signage and toilet height.

  - Management – Exclude UTI, faecal impaction and constipation.
    - Improve access to toilet.
    - Manage immobility.
    - Manage dexterity, modify clothing.
    - Consider bed side commode or urinal
    - Arrange chairs/beds that are easy to get out of.
    - In cognitively impaired patients try prompted or timed voiding and clearly identify toilet.

Management of Urinary Incontinence

- Bladder training is a non-invasive behavioural strategy used to manage symptoms of urgency, frequency and urge incontinence.

  - Types of bladder training :
    - Prompted voiding:
    - Habit retraining
    - Timed voiding/scheduled toileting

  - If continence is unachievable containment aids eg. Pads/uridomes may be used to prevent social inconvenience and embarrassment.
Bladder management

Any Questions?

References

Bowel Management

What is normal bowel function?
- Bowel opening three times a week to three times a day
- and needing to strain on <25% of occasions to achieve emptying.
- No hard, lumpy stools
- No feeling of incomplete evacuation
- No incontinence.
Brain and Bowel function

- Brain influences bowel function primarily by the cortical inhibition.
- Interaction between the neural plexuses that innervate the gastrointestinal tract is controlled by the Central Nervous System, which influences the motor and secretory activities of the gastrointestinal tract.
- There has been suggestion that stroke induced lesions in the pontine defecatory centre of the brain may be related to constipation/impaction.
- Lesions in the pre-frontal areas of the brain may be more related to faecal incontinence.

Stroke and Bowel Function
Contributing factors

- Diet and dehydration
- Immobility
- Confusion
- Medication
- Communication problems ie. Aphasia, dysphasia and apraxia
- Mood changes/depression
- Environment
- All these factors may alter the pattern of defecation and lead to complications like constipation, incontinence and diarrhoea.

Bowel Management
Initial Assessment

- Initiating an effective bowel program is an essential nursing responsibility.
- Establishing Bowel control is an integral component of the total rehabilitation process.
- Before initiating a Bowel program, a thorough history and evaluation of the patient’s bowel status must be done.
- Ask the 4 key questions
  - When did you last use your bowel?
  - What is your usual bowel pattern?
  - Do you have problems with constipation/diarrhoea?
  - Do you use any laxatives/aperients/fruit juices to make your bowels work?
Bowel Management
Constipation and Impaction
- Identify the risk factors that might contribute to constipation:
  - Hospitalisation, diet and fluid intake, current medications, medical history, and physical activity.
- Step 1 – Assess when normal bowel activity last occurred. Commence bowel chart and refer to Bristol stool chart.
- Step 2 – Consider stimulant laxative in conjunction with osmotic laxatives.
- Step 3 – If the rectum is loaded consider administration of suppositories or enema.
- Step 4 – Continue step 2 and 3 for effective clearance of the rectum.

Ongoing bowel management for constipation
- Review daily dietary fibre intake – consult the dietician.
- Review fluid intake. Ensure a daily fluid intake of 1.5 – 2L/day.
- Liaise with RMO if patient is fluid restricted.
- Provide prune juice daily as appropriate.
- Consider laxative administration.
- Observe for symptoms of bladder distension, abdominal pain, halitosis, faecal incontinence, and nausea.
- Liaise with RMO who may organise an abdominal x-ray, blood tests, and further investigations.

Bowel management for faecal incontinence
- Faecal incontinence is a symptom, not a diagnosis and is often accompanied by multiple contributory factors.
- Causes of faecal incontinence:
  - Faecal impaction with overflow
  - Anal sphincter
  - Degenerative neurological diseases
  - Gut motility/stool consistency: Infection, irritable bowel syndrome, and dietary
  - Environmental/lifestyle
Bowel Management for faecal incontinence.

- Document bowel activity on bowel chart and general observation chart.
- Promote regular time for defeacation.
- Encourage patient to adopt the correct sitting position on the toilet and to avoid straining.
- Ensure appropriate dietary intake.
- Liaise with RMO to consider alternatives for medications which may be contributing to faecal incontinence.
- Consider use of anti-diarrhoeal.
- Offer patient the use of disposable absorbent products as appropriate.

Bowel management for faecal incontinence

- Skin care and general considerations:
  - Cleanse the patient’s skin after each faecal incontinence episode.
  - Avoid use of talc based powders.
  - Apply appropriate moisturiser and barrier products to the perianal/perineal area.
  - Initiate a wound management plan.
  - Document individual patient’s requirements in the nursing care plan and integrated notes.

General information on products

- The use of products may be indicated after an initial assessment of bladder and bowel function.
- When assessing for products consider:
  - Functional ability of the patient
  - Severity of bladder and bowel dysfunction.
  - Gender
  - Patients preference and co-morbidity.
  - The long term use of pads has financial implications for the individual.
Types of Pads

- Shaped pad/2-piece system
  - Waterproof backing
  - Secured with an adhesive strip
  - To be worn with firm fitting underwear.

- Self-adhesive
  - Waterproof backing
  - Secured with an adhesive strip
  - To be worn with firm fitting underwear.
  - Can be used for small-moderate urine/faecal loss

- Insert/booster pads
  - Free from plastic backing
  - Non adhesive
  - Can be used in addition within another pad.
  - Extends the life of the outer pad.

Types of Pads
Continued

- Non-adhesive
  - Waterproof backing
  - Use with firm fitting underwear or disposable net pants.
  - Used for large volume urine/faecal loss
  - Individual needs to have good manual dexterity to be able to manage these pads.

- Absorbent body worn/self contained pants. Used for mobile patients unable to manage the two piece system and those who are suitable for toileting programs. These pads have waterproof backing and are pulled on like underwear.

- Side fastening/all-in-one pads. Used for patients who are bed or chair bound with intractable incontinence and are unable to be managed by other means. These pads are secured with the aid of adhesive tabs.

Discharge Planning

- The discharge plan should be holistic and individualised
- All patients discharged home with a bladder or bowel management plan to be educated on good bladder/bowel habits, lifestyle modifications and the need to commit to these modifications long term.
- Patient and/or carer given advice on continence products and information about product choice.
- Patient to be assessed for eligibility for funding to assist in the cost of purchasing continence equipment.
- Funding schemes are available from Continence Service.
- Referral to OPD Continence Clinic as required.
- Advise patient to contact GP if bladder/bowel function worsens.
Bladder management

Bristol Stool Chart

- Type 1: Hard lumps like nuts, like small potatoes
- Type 2: Less formed, like mouldy loaves
- Type 3: Molded or lumpy shape with hard, like tooshy
- Type 4: Worm shaped, stringy, or pasty
- Type 5: Soft stool with clear soft edge, formed stool
- Type 6: Soft or pasty stool, no clear edge, moveable stool
- Type 7: Liquid stool, no solid stool

References

2. National Institute for Health and Clinical Excellence June 2007 NICE clinical guideline 40

Bowel Management

Any Questions?