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QUALITY CARE IMPROVEMENTS

## bowel protocol

## Bowel Care Protocol Introduction:

**Title: Bowel Care Assessment and Protocol Tools**
**Suggested Practice Guidelines for the Management of Constipation or Neurogenic Bowel in Adults**
**Submitted by: Alliance Labs**

Quality Care is paramount in every aspect of the healthcare field. However, over the last ten years very little attention has been paid to the consequences of an ineffective bowel care protocol within the hospital inpatient setting. Secondary patient complications from incontinence and fiscal overages are many times overlooked or unknown. Please find enclosed Quality Care Improvement Measures for inpatient bowel care protocols that will not only provide for enhanced patient care, but cost reductions at the facility level.

## Consideration Purpose:

Constipation is the most common gastrointestinal complaint in primary, acute, and long-term care settings in the United States. An estimated 42 million individuals in the United States have bowel issues or constipation, and an estimated 1 million have incontinence. As the United States grows older, the costs and quality of life issues related to constipation and incontinence of individuals will only increase. Further information and recommendations are needed in this area. Very few healthcare institutions have current bowel protocols in place and the growing need is evident. Studies show that patients placed on a regimented bowel care program, receiving both oral and rectal therapies to achieve complete rectal emptying, had 35% fewer episodes of fecal incontinence and 42% fewer incidents of soiled laundry (Age & Ageing 2000; 29: 159-164). The referenced research into secondary complications of incontinence is included in this packet.

## Constipation:

The highest reported incidences of constipation in specific populations were 45% of all patients with cancer (McMillan & Williams, 1989), 45% of all frail elders (Wolfsen, et al., 1993), and 46% of all hospitalized elders (Wright, 1984). The incidence of constipation increases in people with diminished functional and cognitive ability and in the frail elderly (Campbell et al., 1993). Chronic idiopathic constipation has both physical and psychological impacts (Dykes et a1., 2001). Persistent stretching of the pudendal nerves may ultimately result in complications such as hemorrhoids, rectal prolapse, or incontinence. The psychological impact of constipation is often the result of changes in activity levels that often leads to increased isolation (Koch & Hudson, 2000). Situations that place people at risk for acute constipation include: imposed immobility, a change in toileting habits, dietary changes (whether self-imposed by dieting or for medical reasons), medications, and stress. The most common predisposing factors for chronic constipation include: advanced age, being female, poor fluid and dietary intake, cognitive or functional impairment, ongoing privacy issues, and polypharmacy. Opioids are among the major medications that predispose patients to constipation (Levy, 1991; McMillan & Williams, 1989; Sykes, 1996).

Constipation is a common cause of morbidity in palliative care persons. It affects up to 95% of the people who are taking opioids (Driver LC, Bruera E., 2000). Even in the absence of oral intake, the body continues to produce 1-2 ounces of stool per day. The bowel lining is continually renewing itself and sloughed cells, along with bacteria and digestive juices, comprise much of the stool (Chase, D. G. & Erlandsen, S. L. 1976). Hence, individuals can easily become constipated even when they are not eating.

## Complications of Constipation:

- Abdominal pain and increased cancer pain in people with abdominal or retroperitoneal malignancy
- Abdominal distention/discomfort
- Nausea, vomiting, and anorexia
- Overflow diarrhea
- Hemorrhoids/anal fissures
- Bowel obstruction
- Urinary retention
- Anxiety and restlessness
- Autonomic dysreflexia

## Facts Related to Secondary Complications of Incontinence:

- Incontinent patients have a 22-30% higher risk of developing pressure ulcers.[1]
- Odds of having a pressure ulcer were 22 times greater for adult patients with fecal incontinence.[2]
- Data highlighted that fecal incontinence can damage the skin's integrity, leading to skin breakdown and possible wound contamination, giving rise to major healthcare costs.[3]
- Nursing home residents at higher risk for developing ulcers are those who have limited ability to reposition themselves, cannot sense the need to reposition, have fecal incontinence, or cannot feed themselves.[4]
- Both fecal and urinary incontinence increase moisture, but fecal incontinence is hypothesized to act as a more potential risk factor for skin breakdown than urinary incontinence.[5]
- Fecal incontinence represents a major risk to perianal skin integrity and healing of perianal wounds.[3]
- Pressure ulcers were more prevalent (12%) among residents who had any recent bowel or bladder incontinence than among continent residents (7%).[6]

Alliance Labs has set forth the following model to provide better patient outcomes from a dependable bowel care protocol within the facility setting, as well as assist in patient compliance at home. The outlined protocol should overcome challenges that facilities face when trying to reach clinician consensus and should provide greater ease for physician and nursing involvement. We appreciate your organization's review.

## Neurogenic Bowel Disease Overview:

Spinal cord disorders and the associated neurological damage results in impaired voluntary and reflex activity with altered bowel transit and impaired storage/evacuation mechanisms. Spinal cord disorders are classified by neurological level (anatomic level) and by the degree of intactness of ascending and descending spinal cord pathways ("complete" or " incomplete"). Bowel function varies depending upon the level and, to some degree, the completeness of the spinal cord injury.

***Populations/Diagnostic Groups at Risk:*** Spinal Cord Injury (SCI), Multiple Sclerosis (MS), Spina Bifida, Long-Term Care (LTC), and Traumatic Brain Injury (TBl). All persons with complete SCI have neurogenic bowel. Most persons with incomplete SCI have some manifestation of bowel dysfunction (Stiens, Bierner-Bergman, & Goetz, 1997). Excluding bladder dysfunction, gastrointestinal disorders are the most common complications of patients with spinal cord injuries. 95% of SCI patients require at least one therapeutic intervention to initiate defecation. 54% of SCI patients report bowel and bladder dysfunction as a major life-limiting problem (Higgins, Johanson, 2004).

## Neurogenic Bowel Disease Caused by Spinal Cord Disorders is Distinguished into Two Types:

Voluntary control is lost with both Upper Motor/Lower Motor (UM/LM) lesions; whereas, reflex control via spinal reflexes is lost with Lower Motor Neuron (LMN) lesions, but retained with Upper Motor Neuron (UMN) lesions. Stool transit is slowed in both Upper-Motor Neuron and Lower-Motor Neuron injuries, and the longer transit time allows for more absorption of fluid from the stool resulting in drier, harder stool with associated constipation and /or impaction (mechanical bowel blockage by immobile stool mass). Rectal storage and evacuation in neurogenic bowel disease are similar in appearance when comparing UMN and LMN bowel dysfunction. In both situations, protracted storage with fecal retention and associated unpredictable evacuation are the typical bowel dysfunctions observed, but for differing reasons.

## Upper Motor Neuron (UMN) Neurogenic Bowel (nerve damage above the conus):

In Upper Motor Neuron neurogenic bowel disease, the unregulated spinal reflexes cause a hyper reflexic rectal wall, and the Pelvic Floor Muscle (PFM) and Internal Anal Sphincter (IAS) will relax reflexively, but evacuation does not occur as expected due to the absence of coordinated reflex/voluntary relaxation of the "spastic" External Anal Sphincter (EAS). Unfortunately, the EAS will relax unpredictably and an incontinent bowel movement will occur.

## Lower Motor Neuron (LMN) Nerogenic Bowel (nerve damage at the conus or cauda equine. i.e. Conus Medullaris Syndrome, Cauda Equina Syndrome, and Spina Bifida):

In Lower Motor Neuron neurogenic bowel disease, the absent spinal reflexes cause a flaccid, areflexic rectal wall, and the reflex relaxation of the PFM and IAS is lost. The EAS is also flaccid, but solid stool will remain within the rectum, as the remaining intrinsic nerve propulsion is insufficient for evacuation. In this situation, bowel incontinence will occur if the stool is loose (liquid or semi-solid).

## Numerous Complications and Evacuation Problems Associated with Neurogenic Bowel:

A bowel program for a patient with neurogenic bowel should be designed to take into account attendant care, personal goals, life schedules, role obligations of the individual, and self-rated quality of life. Bowel programs should be initiated during acute care and continued throughout life, unless full recovery of bowel function returns. Careful measures must be taken to avoid pressure ulcers and falls. Adequate social and emotional support should be available to help individuals manage actual or potential disabilities and handicaps associated with neurogenic bowel. All aspects of a bowel management program should be designed to be easily replicated in the individual's home and community setting. Effective treatment of common neurogenic bowel complications, including fecal impaction, constipation, and hemorrhoids are necessary to minimize potential long-term morbidities.

- Obstruction
- Delayed or unplanned evacuation
- Abdominal distention
- Aspiration and pneumonia
- Hemorrhoids
- Impaction
- Autonomic dysreflexia
- Ability to defecate
- Abdominal pain
- Diverticulosis
- Nausea and vomiting
- Gastric ulcers
- Constipation
- Appetite loss
- Dehydration
- Sensory loss

A bowel management program will be implemented for the individual who experiences or is at risk of experiencing bowel incontinence or retention/constipation. The bowel program of choice will be individualized for each patient, requiring the least amount of intervention (i.e. high fiber diet and dietary supplements, medications, mini-enemas, digital stimulation, etc.) to achieve acceptable results as identified by the patient, the treating clinicians, and/or the Rehabilitation team.

## Procedure:

1. Assessment. Please refer to Bowel Care Patient Assessment Form, presented as Addendum A.
   Complete Bowel Assessment Chart
   a. Identify the patient's pre-morbid bowel elimination pattern and use of laxatives or chemical rectal stimulants.
   b. Identify potential risk for and /or existing bowel elimination problems.
2. Follow recommended nutrition and fluid requirements.
3. Establish a daily predictable bowel care time.
4. Follow Pharmacological Constipation Intervention-Step Therapy Protocol.
5. Documentation.
6. Patient assessment and team protocol execution.

## Fiber Intake:

Fiber is an important part of maintaining a normal bowel function. Individuals should be encouraged to eat fiber from a variety of sources. The diet should include whole grains, fruits, vegetables, legumes, seeds, and nuts. Tolerance of gradual increases in fiber content should be evaluated. Two liters of daily fluid intake is recommended based on the patients tolerance. The benefits of fiber and fluid intake may not be noted for several weeks, so it is important not to discontinue their inclusion in a bowel program prematurely.

Suggestions that will assist in developing and maintaining a healthy bowel movement regimen include:

- Consume at least five servings of fruits and vegetables each day.
- Incorporate 2-3 servings of whole grains as part of the 6 -11 recommended servings in the Food Guide Pyramid.
- Vary and complement whole grains, nuts, seeds, legumes, fruits, and vegetables to obtain all fiber components in the diet.
- Select whole fresh and dried fruits rather than fruit juices.

## Fluid Intake:

Water comprises approximately 80% of the human body at birth and decreases with age to about 60%. In addition to its role in transporting nutrients, oxygen, drugs, and waste products in the blood, and in regulating body temperature, an important function of water is to prevent constipation. Factors that increase fluid needs include: exercise, high temperatures, low humidity, high altitude, high fiber diet, and increased fluid losses often related to caffeine and alcohol consumption (Kleiner, 1999). Although requirements vary widely among people, generally humans should consume at least 2 liters per day of liquids in the form of non-caffeinated, nonalcoholic beverages, soups, and other foods (Kleiner, 1999). Kleiner recommends a fluid intake of 2,900 ml per day for the average-sized man (70 kg) and 2,200 ml per day for women using a guideline of 1 ml/kcal of energy needs. Solid foods provide about 1,000 ml per day and an additional 250 ml is derived from water resulting from oxidation. A pregnant woman requires 300 ml of extra fluid per day and a lactating woman requires 750 -1,000 ml above the basic requirement (Food and Nutrition Board, 1989). Additional factors to consider in regards to overall fluid intake is the time of the year, regional location of the patient, activity level, and urinary output. Total water and fluid intake should be included in any diet record. Future studies that measure dietary fiber intake should also closely measure fluid intake.

Constipation is one indication that an older adult may be dehydrated. Dehydration is not easily detected in the elderly because chronic dehydration can result from less than adequate replenishment of water over time. There is no uniform definition of dehydration, but rapid weight loss of greater than 2%–3% is a generally accepted definition (Weinberg & Minaker, 1995). Regular monitoring of fluid intake is recommended for the elderly. The estimated amount required at baseline for adults over 65 is 30 ml/kg of body weight. A minimum of 1,500-2,500 ml is the daily water intake required to replace urinary and fecal losses and insensible losses for older adults (Weinherg & Minaker, 1996).

## Establishing the Timing of Bowel Care:

Mass movements usually occur only 1 to 3 times a day, usually after a meal. They are facilitated by the gastrocolic and duodenocolic reflexes, and are strongest for about 15 minutes in the first hour after breakfast. An established morning bowel protocol is recommended.

## General Constipation:

- Transfer to the toilet/commode at a consistent scheduled time for complete evacuation.

## Neurological Disorders:

- A regular bowel pattern and frequency needs to be established with consideration to the type of neurogenic bowel and the whole person.

## Pharmacological Constipation Intervention:

Pharmacological treatment is appropriate for an acute episode of constipation. Otherwise, there is consensus among experts that pharmacological treatment should be considered only after non-pharmacological interventions, such as diet and exercise, have been tried (Yabbowich, 1990; Harari et aI., 1993; Tedesco & DiPiro, 1985). However, this is not true with patients with a neurogenic bowel. **Alliance Labs does not recommend usage of all products listed. Product usage and dosing should be at the discretion of the healthcare facility.**

**General Constipation Dosage Orders:**
Orders for pharmacological agents in the healthcare setting should be written as PRN rather than as scheduled medications, to encourage nurses to assess and evaluate the needs of their patients on an on-going basis. Noting that patients with a prior history or high score on the Constipation Assessment Scale(CAS) should be evaluated for scheduled bowel care medication usage, as well as patients with a neurogenic bowel.

**Neurogenic Bowel Dosage Orders:**
***Enemeez***®, if no BM in 30 minutes ***Enemeez***® X1, X2, or X3. One to three units rectally as needed or as directed by a physician. This process can be administered safely up to 3 times during a bowel care session or per day. Do not exceed physician's recommendations.

## Stepwise Approach to Management of Constipation: (Adapted from Sanburg McGuire & Lee, 1996)

Taking the least invasive approach or a stepwise approach to management of a neurogenic bowel or constipation is recommended, keeping in mind the most natural form of elimination is the best long-term approach. Consideration of maintaining healthy rectal mucosa is paramount to patient quality control measures when using rectal stimulant remedies (i.e. bisacodyl).

**Daily**

**Daily: Encourage Exercise-Fluid-Fiber-Toileting Regimen** (Same time each day, morning recommended)
- 64-96 ounces of fluid daily as tolerated (water, prune juice, juices etc.)
- 20-35 grams of fiber
- Hot beverage prior to scheduled toileting regimen

**Neurogenic Bowel: Incorporate daily for regimented bowel program**

**Note: Certain antineoplastics or specific chemotherapy agents can cause either constipation or diarrhea. If individuals experience diarrhea, hold the laxatives temporarily until diarrhea subsides.**

**Day 1-2**

**Stool Softeners: If patient exhibits hard stools, inadequate amount of stool or no bowel movement. Docusate sodium (DSS) can be taken orally or rectally. For these drugs to be most effective, it is essential that a person consumes at least 1 to 2 liters of fluid per day.**
- Docusate sodium oral 100-400 mg daily
- ***Enemeez***® rectal , if no BM in 30 minutes X1, X2, X3 QD

**Neurogenic Bowel: Incorporate daily for regimented bowel program**

**Note: Always remember to check the bowel routine with the patient. Ask if this pattern is unusual, or is it normal for them to have a bowel movement once every 3 days.**

**Day 2-3**

**Stimulants: Titrate sennosides tablets, 2-4 tabs BDD up to QID, and docusate TID up to QID to achieve regular bowel movement.**
- Senna 0.5 to 2 grams QD or BID

**Note: Administer oral stimulant laxatives, *Enemeez*® (docusate sodium mini-enema) on Day 3, if ineffective, give suppository or enema whenever a person does not have a bowel movement for 3 days.**

**Day 3-4**

**Suppository if no bowel movement.**
- Glycerin suppository 1 rectally PRN
- Bisacodyl 5-10mg suppository-1 rectally PRN
- Physician prescription product recommendation

**Note: Be sure to assess for bowel obstruction BEFORE initiating aggressive laxative and large volume enema administration. Such therapies are contraindicated in the presence of bowel obstruction, except if obstruction is due to constipated stool.**

## Documentation:

A daily bowel care chart shall be completed for each patient receiving constipation intervention and should be reviewed as part of the predictive care team pathway weekly.

| Date | Time of Evacuation | Total Time for Bowel Care | Fluid in ml | Fiber in Grams | Stool Consistency Bristol Stool chart Type 1-7 | # of Incontinence Episodes | Time Spent on Digital Stimulation | Bowel Medication(s) Used |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## Monitor and Assess Team Program:

Taking measures like these will ensure that your organization's team members gain ownership of the program and will extend past the development and implementation of the predictive care bowel protocol.

 1. S. Foxley & R. Baadjies; Incontinence-associated with dermatitis in patients with spinal cord injury; British Journal of Nursing Vol 18, No. 12. 2. Advanced Wound Care/Maklebust&Magnan/1994 Nov;7(6):25, 27-28, 31-4 passim/ Risk Factors associated with having a pressure ulcer: a secondary data analysis. 3. Ousey, Karen and Gillibrand, Warren P. (2010) Using faecal collectors to reduce wound contamination. Wounds UK, 6 (1). Pp. 86-91. 4. Pressure Ulcers in the Nursing Home; Ann Intern Med. 1995;123 (6): 433-438. 5. Shannon ML, Skorga P. Pressure ulcer prevalence in two general hospitals, Decubitus. 1989;2: 38-43. 6. NCHS Data Brief, No. 14 February 2009. Pressure Ulcers Among Nursing Home Residents: United States, 2004 Eurice Park-Lee, PHD., and Christine Caffrey, PhD., Division of Health Care Statistics. ENZ010.R1 11.25.19

# ordering information

## PATIENT DIAGNOSTIC CODES

| | |
|---|---|
| Quadriplegic: | G82.50 |
| Paraplegic: | G82.20 |
| Multiple Sclerosis: | G35 |
| Cerebral Palsy: | G80.9 |
| Spina Bifida: | Q05.9 |
| Stroke: | I63.9 |
| Constipation: | K59.00 |

## NATIONAL DRUG CODE NUMBERS

| | |
|---|---|
| *Enemeez*®: | 17433-9876-03 |
| *Enemeez*® *Plus*: | 17433-9877-03 |

***Enemeez***® MUST BE BILLED AS A DRUG

## wholesale numbers

| | *Enemeez*® | *Enemeez*® *Plus* |
|---|---|---|
| MCKESSON | 2732121 | 1163252 |
| CARDINAL | 3401650 | 3419884 |
| AMERISOURCE 8-digit | 10053842 | 10044189 |
| AMERISOURCE 6-digit | 845279 | 669554 |

### MEDICAID COVERAGE

***Enemeez***® is covered in 78% of the United States by Medicaid, requiring little or no out-of-pocket cost to the patient.

### PRIVATE INSURANCE

Many private insurance plans cover the cost of ***Enemeez***®. We recommend that individuals contact their insurance companies and inquire if ***Enemeez***® is on their formulary plans. If it is not, request the prior authorization form, which should be completed and submitted to the insurance company by the prescribing physician.

### PATIENT ASSISTANCE PROGRAMS

For states that do not cover ***Enemeez***®, we've developed a Patient Assistance Program. Our commitment to our patient community is to make sure that all patients shall not be denied ***Enemeez***® as an option for bowel care because of cost. Please contact us for additional information.

### VA FEDERAL SUPPLY SCHEDULE

***Enemeez***® is available on the Federal Supply Schedule and must be requested by name.

### GROUP PURCHASING ORGANIZATION

***Enemeez***® is contracted with most major Group Purchasing Organizations.