Guideline

Guideline Title: Bowel Management

Summary: This guideline outlines the bowel management strategies for critically ill patients with altered bowel function. It includes management of diarrhoea and constipation.

Approved by: Director of ICU

Publication (Issue) Date: August 2014

Next Review Date: August 2017

Replaces Existing Policy/ Guideline:

Previous Review Dates:

1. Introduction:

The risk addressed by this policy:

Patient safety and patient comfort

The Aims / Expected Outcome of this guideline:

All ICU patients will receive ongoing assessment and management of their bowel function in order to maintain normal bowel patterns, prevent diarrhoea, constipation and obstruction.

Related Standards or Legislation

- NSQHS Standard 1 Governance
- National Standard 4 Medication Safety

Related Policies

ICU Guideline_Clinical _Guidelines_Faecal_Management_System
ICU Guideline_Systems_Gastrointestinal_Enteral_Nutrition

2. Policy Statement

- All care provided within the Liverpool Hospital will be in accordance with infection control guidelines, manual handling guidelines and minimisation and management of aggression guidelines.
- Bowel assessment must be attended with ICU physical assessment and documented daily on the ICU flowchart.
• Aperients must be considered for all ICU patients that are enterally fed or on an oral diet.
• Clinical staff must ensure that aperients are not contraindicated with the patient’s clinical condition, drug or treatment management.

3. **Principles / Guidelines**

**Background**
There is wide variation in the frequency and regularity of bowel actions in adults. The ‘normal’ for the individual should be ascertained whenever possible. Alteration in bowel habits can be a result of decreased mobility, altered nutrition, medications and impaired fluid intake. For example, morphine can slow gut motility and sedation inhibits activity in the patient, as does being attached to various monitors, machines and tubes. Peristaltic movement of the gut is normally stimulated by movement and exercise. Diet and fluid are important to maintain normal bowel function. Each patient should receive adequate fluid and fibre intake to prevent constipation and provide nutritional support.

**Patient Assessment.**
Prior to performing a physical assessment the following information on the patient’s bowel pattern/habits should be obtained:
- What are the patient's usual bowel habits?
- Does the patient usually take aperients?
- What is the regular dietary, fluid and exercise routine?
- Are there contraindications to the use of aperients with the patient?
- Does the patient’s clinical condition warrant their bowels open. e.g. abdominal surgical patients.
- Could there be a metabolic or physical cause for their constipation eg. hypocalcaemia, spinal cord compression, tumour infiltration, ileus or obstruction?
- If being enterally fed, what is the amount of aspirate? Is the patient absorbing feed? Refer to Enteral Nutrition guideline.

**Physical Assessment:** at the commencement of each shift and then prn.
- Abdominal examination
  - Expose and observe the abdomen, look for distension
  - Auscultate for presence of bowel sounds - if present, note pitch
  - Palpate for tenderness, tightness/rigidity
  - Document passing flatus, bowels open and quantity/nature of faeces.
- Inform the ICU Medical Officer if there are any of the following signs:
  - Increasing tenderness, distension/rigidity
  - Decreased/high pitch bowel sounds or absent sounds
  - Blood or mucous present in stool.
- Document findings on the physical assessment area of the flow chart or document in the patient's health care record
- Rectal examination (medical officer's procedure), abdominal x-ray and GIT consult may be required as per the M.O. request.

**Constipation.**

**Definition**
Constipation is defined as the difficult passage of hard, dry stool. In general, constipation can be defined as two days without stool (when orally or enterally fed), five days without stool (when receiving only parenteral nutrition or nil intake), or very dry hard stool at any time.
Contributing factors and causes of constipation

- Opioid infusions
- Reduced mobility
- Altered food intake and lack of dietary fibre
- Reduced fluid intake
- Physiological effects of critical illness such as reduced mesenteric perfusion
- Medications which reduce gut smooth muscle function, e.g. Propofol
- Psychological factors, such as distress, loss of privacy and embarrassment.

Complications of constipation

- Abdominal pain, distension and discomfort.
- Nausea and vomiting with or without anorexia
- Failure to tolerate enteral feeding with large amount of aspirate leading to malnutrition
- Failure to wean from mechanical ventilation
- Overflow diarrhea
- Faecal impaction
- Bowel obstruction and paralytic ileus
- Bowel rupture and perforation
- Rectal tear / fissure associated with the development or exacerbation of haemorrhoids

Precautions

Aperients may be contraindicated for the following patients:
- Patients who have had abdominal surgery and where feeding is yet to be established.
- Patients with a bowel obstruction
- Patients with an ileus
- Patients who are on Total Parenteral Nutrition (TPN)
- Patients with existing bowel pathology such as Crohn's disease and ulcerative colitis
- Patients who are unable to tolerate enteral feeding / oral diet

Note: Patients with raised intracranial pressure must not have a rectal examination or drug therapies administered rectally due to the risk of valsalva manoeuvre and further increases in the intracranial pressure.

Management of Constipation

- Constipation can be reduced by early mobilisation, adequate fluid and fibre intake.
- Regular stool softeners and laxatives should be used if these actions do not work.
- Osmotic and stimulant laxatives are considered more effective for bed-bound patients; with the use of suppositories and enemas as part of a bowel management regime.
- Aperients that may be administered for constipation management have different modes of action, and fall into four main groups:
  - Bulking agents (fibre supplements: Metamucil, Benefiber)
  - Lubricant/softeners (such as bisacodyl (Coloxyl), Microlax enema, paraffin)
  - Gut stimulants (such as senna, glycerin suppository, oral Fleet)
  - Osmotic agents (such as lactulose, Movicol, Fleet Phospho-Soda oral, Fleet Phosphate enema, Glycoprep).

Refer to the Bowel Management Chart for constipation in Appendix 1.

Diarrhoea

Definition

Diarrhoea is common in critically ill patients. It is defined as greater than 300ml or 3 liquid bowel motions in a 24 hour period.
Contributing factors and consequences of diarrhoea\textsuperscript{1,2} 
\begin{itemize}
\item Diarrhoea can be as a result of enteral feeding (although other causes should be eliminated before attributing the diarrhea to feeding) and antibiotic therapy.
\item Infective causes such as clostridium difficile or rota virus
\item It is more common in patients who are septic and low in albumin.
\item It may lead to electrolyte imbalances, dehydration, malnutrition and skin breakdown
\end{itemize}

Management of Diarrhoea\textsuperscript{1,2,4} 
\begin{itemize}
\item Discuss with dietician possible changes to feed regime to increase the fibre content. Feeding related diarrhoea may rarely require reduction of feeding rate or repositioning of feeding tube.
\item Impaction may need to be excluded via PR examination
\item Exclude malabsorption conditions
\item If clostridium difficile toxin is suspected, stool specimen should be sent. Clostridium Difficile is a spore forming bacterium that can be found in stool specimens. Following antimicrobial treatment toxin-producing strains of \textit{Clostridium difficile} can multiply and may cause illness. It is a common cause of antibiotic-associated diarrhoea
\item Medications should be reviewed by the medical team- magnesium, sorbitol containing medications, anti-emetic/ prokinetic agents, antibiotic therapy all may have diarrhoea as a side effect
\item Gut slowing medications (e.g. loperamide, codeine phosphate) may be considered if microbiological causes for diarrhoea have been excluded.
\item In some cases probiotic therapy or medications to stop diarrhoea may need to be considered.
\item If the patient has large volume of liquid diarrhoea, then you may need to consider the use of a faecal management system. Observe fluid balance and assess the need to replace fluid losses.
\end{itemize}

4. Performance Measures

All incidents are documented using the hospital electronic reporting system: IIMS and managed appropriately by the NUM and staff as directed.

5. References / Links
\begin{enumerate}
\item Elliot, D., Aitken, I., Chaboyer, W. (Eds). 2012. 2\textsuperscript{nd} ed. ACCCN's Critical Care Nursing.
\item The Joanna Briggs Institute, 2013. Constipation Management.
\item McPeake J, Gilmour H & MacIntosh G. 2011. The implementation of a bowel management protocol in an adult intensive care unit. \textit{British Association of Critical Care Nurses} 16 (5) : 35 -42
\end{enumerate}

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Endorsed by: A/Prof M. Parr, Director- ICU
APPENDIX 1. Bowel Management for Constipation Flow Chart

1. Physical Assessment including abdominal assessment and history of bowel habits
2. Assess for potential contraindications or precautions to commencing patient on Bowel Management Program:
   • Spinal Cord Injury - no senna products (long-term use slows gut motility)
   • Raised intracranial pressure - avoid rectal exam/rectal administration of drugs - may raise ICP
   • Bowel surgery - assess whether team has documented a request re bowel management, discuss with ICU team.
   • Bowel pathology - inflammatory bowel disease, ulcerative colitis and toxic megacolon
   • Inability to tolerate enteral feeding/oral diet

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**On Admission**

**Physical Assessment** - document abdominal examination results

- **Contraindications/Precautions exist**
  - Yes
  - Plan for prevention of constipation and bowel care management documented in health care record

- **Patient assessed as able to commence Bowel Management Protocol**
  - Yes
  - Daily Physical assessment - documented
  - Daily bowel activity - documented
  - Ward round review:
    - patient status,
    - bowel status, faeces amount and type
    - medication review,
    - enteral/oral feeding review

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**ICU - Day 1**

Commence patient on coloxyl with senna x 2 tablets/day (warm water - assists with gut motility)

- **Day 2 - If BNO:**
  - Continue coloxyl with senna
  - Add Movicol sachet with 125mL warm water, daily.

- **Day 3 - If BNO:**
  - Continue coloxyl with senna
  - Continue Movicol sachet with 125mL warm water, daily.
  - Inform M.O. and consider:
    - Increasing no. of sachets

- **Day 4 - If BNO:**
  - Consult with M.O.

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**Day 1**

Commence Coloxyl with senna x 2 tablets daily

- **Day 2**
  - If BNO x 1 day:
    - review with M.O.

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- **Day 3**
  - If BNO:
    - Glycerine suppository
    - No result in 4 hrs
    - Microlax enema
    - No result in 4 hours:
      - MO informed, consult re Fleet (Phosphate) enema

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- **Day 4**
  - If BNO:
    - Consult with M.O.

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**Consider prescription for Yakult 65mL x 1 or 2 bottles/day Keep refrigerated until ready to use.**