PALLIATIVE BOWEL PROTOCOL
JULY 2022

1.0 PROTOCOL

1.1 Intent: Upon admission to Acute Care, Community Hospice Beds (CHB) and/or Home Health programs the following palliative bowel protocol will be used by nurses (RNs, LPNs, RPN) for all persons with palliative needs at risk of experiencing opioid induced constipation (OIC).

Note: This protocol may also be used for Long-term Care (LTC) residents with palliative needs who receive opioid therapy.

1.23 Indications and Contraindications for use of Palliative Bowel Protocol.

INDICATIONS	CONTRAINDICATIONS
• To **prevent** opioid-induced constipation for all persons with palliative needs who are prescribed opioids. • To **manage and treat** constipation for persons with palliative needs who are prescribed opioids. .	This protocol does NOT apply to individuals with: • Ileostomy. • Complete bowel obstruction. • Diarrhea. • Impaction. If impaction present, clear prior to initiating protocol. • Short Bowel Syndrome. If in doubt, contact Most Responsible Practitioner (MRP) for further assessment and clinical guidance.

1.3 **Assessment:** (see Algorithm, Appendix 1)

- **Bowel history:**
  - Obtain a comprehensive bowel function history from the individual and/or caregiver including: usual bowel movement *(BM)* frequency & stool characteristics *(Bristol Stool Form Scale)*; medical conditions; medications; usual toileting routines; use of laxatives; physical & cognitive conditions & capabilities that may impact bowel functioning; cultural practices; surgical procedures[1]
- **RAI Bowel Conditions: (Home Health [RAI-HC]; LTC [RAI-2.0] if relevant)**
  - Review history, patterns, frequency and any triggered CAPS *(Clinical Assessment Protocols – "Bowel Conditions")* & Outcome scales (pain scale; ADL long and ADL short; ADL self-performance hierarchy scale; personal hygiene)
- **Daily fluid & fibre intakes:**
  - Assess amount & type of beverages, bran, prune and any bulk forming products if used (e.g. inulin, psyllium based products OTCs); tolerance and side effects

[1] If individual has a colostomy or ileostomy, bowel assessment should include all the above categories of inquiry including assessment of appliance fit and management, stoma health and surrounding skin.

- **Physical Exam:**
  - Assess bowel sounds all four quadrants; palpate abdomen. If reported constipation may require digital exam. (*Note presence or absence of stool in the rectal vault*)
- **Other Physical and Psychosocial Influences:**
  - Inquire about personal needs and preferences to support regular bowel routine; inquire about any fecal incontinence episodes.
  - In Acute and Community Hospice Bed care settings, be aware of recent changes in: diet, mobility, hydration, privacy and environment.

1.4 **Assessment Tools**

Home Health	Acute Care	Community Hospice Beds
• ESAS-r • Symptom Assessment Acronym O-V • RAI-HC – CAPS[2]; *clinical issues: bowel conditions* • Bristol Stool Form Scale	• ESAS-r • Symptom Assessment Acronym O-V • Bristol Stool Form Scale	• ESAS-r • Symptom Assessment Acronym O-V • Bristol Stool Form Scale

PRACTICE ALERT

Consult with MRP:

- If blood is present in stool or rectum
- Absence of bowel sounds
- Abdominal or rectal mass of unknown origin is palpated
- If constipation is not resolved by interventions
- When opioids are initiated – ALWAYS start medication interventions upon receiving the first opioid dose, do not wait for constipation to develop
- Clinical decisions of treating constipation or not during the last days of life (See Appendix 2)

1.4 **Care Planning/Monitoring:**

- Develop and document an individualized Care Plan with care team
- Assess and update on a regular basis
- Initiate Daily Bowel Record on day of admission:
  - Acute Care: #850619
  - Community Hospice Beds: #810071
  - Long-term Care: #810071
  - Home Health (Note: no daily bowel record in HH, but all bowel documentation should be recorded in the Home Health electronic charting tools).

[2] For continuous care managed clients only

1.5 **PREVENTION Interventions[3, 4]: Regular Toileting – Mobility – Fluids – Fibre**

(see Appendix 1 for Routine Constipation Prevention Interventions)

***Note: Dependent on current Palliative Performance Scale [PPS #811178] status*

- Encourage, support and educate individuals regarding regular toileting opportunities that promote comfort, positioning and privacy to facilitate regular BM
- Maximize daily mobility and exercise as tolerated
- Encourage adequate fluid intake (1,500 – 2,000 mL / 24 hours unless contraindicated (e.g. renal or cardiac disease), based on 30ml/kg body weight per day)
- Encourage a fibre-rich diet as tolerated

1.6 **THERAPEUTIC Interventions:** For all individuals started on opioids implement the following non-pharmacological interventions (unless contraindicated or low Palliative Performance Scale [PPS #811178])

- Encourage fluid intake with meals and medications, and after physical activities or toileting.
- Encourage dietary fibre intake – fruit lax, prunes, etc. as tolerated; Note there is poor evidence for using bulk-forming agents, (e.g., psyllium or inulin) to prevent constipation, as palliative patients often do not drink enough fluids (1.5 L/24 hours minimum) as illness advances.

1.7 **PALLIATIVE BOWEL PROTOCOL: MEDICATION INTERVENTIONS**

(Note: This is a protocol to guide practice and ***not*** an order sheet. The Palliative Bowel PPO (#829668) is a stand alone order set. The matching order set can also be located in the Palliative PPOs for acute (#821340) or CHB/LTC (#829571)

PRACTICE ALERT: The following should be started on the **same day** as opioid regime is initiated – Do not wait for constipation before initiating bowel protocol[5]
Upon *initiation* of opioids: • Add **sennosides 12 mg PO HS**
No BM **24 hours (Day 1)**: • Increase **sennosides** to **24 mg PO HS**
No BM **48 hours (Day 2)**: • Increase **sennosides** to **24 mg PO BID** • **Add an osmotic laxative of choice[6]:** ○ **lactulose 15 mL PO DAILY *OR*** ○ **magnesium citrate 150 mg PO daily *OR*** ○ **polyethylene glycol (PEG 3350) 17 Gms/240 mL PO DAILY (Total dose of PEG**

[3] Opioid induced constipation is much easier to *prevent* than treat. Note the constipating effect of opioids are not dose dependant.
[4] The evidence-informed list of prevention interventions is a guide for care planning and should be adjusted in collaboration with the individual's input, personal preferences and the Most Responsible Provider (MRP).
[5] Opioid-induced constipation (OIC): the constipating effects of opioids are persistent. When opioids are started, prophylactic laxatives are usually required, and should be continued for the duration of opioid use. *Source: BC Inter-professional Palliative Symptom Management Guidelines, 2017 pg. 104.*
[6] See Appendix 2 for key clinical decision considerations in choosing laxative regimens and end of life bowel care.

not to exceed 17 Grams/day)
No BM **72 hours (Day 3)**: • Continue **sennosides 24 mg PO BID** • **Increase** osmotic laxative of choice from Day 2: ○ **lactulose 30 mL PO DAILY *OR*** ○ **magnesium citrate 150 mg PO BID *OR*** ○ **Continue polyethylene glycol (PEG 3350) 17 Gms/240 mL PO DAILY**
No BM **96 hours (Day 4)**: • Increase **sennosides** to **24 mg PO TID** • Increase osmotic laxative of choice from Day 2 as follows: ○ **lactulose 45mL PO DAILY** (may be in a split dose) ***OR*** ○ **magnesium citrate 150 gm PO TID *OR*** ○ Continue **polyethylene glycol (PEG 3350) 17 Gms/240 mL PO DAILY**
No BM **120 hours (Day 5**): • **Physical assessment of abdomen and rectum by nurse.**  If no stool in rectum, contact MRP. If fecal impaction present, LPN to collaborate with RN and contact MRP as appropriate. Give suppository (best to give 30 minutes after breakfast, usually effective in 30 – 60 minutes) • **glycerin suppository** if hard stool felt ** ***OR*** ** • **bisacodyl (e.g., Dulcolax®) 10 mg** if soft stool felt If suppository ineffective after 60 minutes give enema: • **sodium (bi-)phosphate (e.g., Fleet®) 130 mL PR** • **NOTE:** AVOID sodium phosphate in individuals with kidney impairment
If no bowel movement results after following this regime, MRP to consult with palliative specialist regarding use of a PAMORA for OIC bowel management, e.g. methylnaltrexone, naloxegol, and naldemedine. See References in Section 2 below.

NOTE: After effective BM results continue PREVENTION & THERAPEUTIC Interventions and update Care Plan

2.0 REFERENCES:

References to select osmotic laxatives[7]:

Bagis et al (2013): Is magnesium citrate treatment effective on pain, clinical parameters and functional status in patients with fibromyalgia? - PubMed (nih.gov)

Lee-Robichaud et al (2019): Lactulose versus Polyethylene Glycol for Chronic Constipation - PubMed (nih.gov)

Pere & Fedorak (2014): Systematic review of stimulant and non-stimulant laxatives for the treatment of functional constipation - PMC (nih.gov)

Rao & Brenner (2021): Efficacy and Safety of Over-the-Counter Therapies for Chronic Constipation: An Updated Systematic Review - PMC (nih.gov)

Tarleton et al (2020): Relationship between Magnesium Intake and Chronic Pain in U.S. Adults - PMC (nih.gov)

References for PAMORAs (Peripherally acting μ-opioid receptor antagonists):

Fernandez-Montes et al (2021): Insights into the Use of Peripherally Acting μ-Opioid Receptor Antagonists (PAMORAs) in Oncologic Patients: from Scientific Evidence to Real Clinical Practice - PubMed (nih.gov)

Luthra et al (2019): Efficacy of pharmacological therapies for the treatment of opioid-induced constipation: systematic review and network meta-analysis - PubMed (nih.gov)

Nee et al (2018): Efficacy of Treatments for Opioid-Induced Constipation: Systematic Review and Meta-analysis - PubMed (nih.gov)

Pergolizzi et at (2020): The Use of Peripheral μ-Opioid Receptor Antagonists (PAMORA) in the Management of Opioid-Induced Constipation: An Update on Their Efficacy and Safety - PMC (nih.gov)

References to support nursing decision making on bowel care nearing and at end of life

Kyle, G. (2011). End of life: a need for bowel care guidance - PubMed (nih.gov)

Smith et al (2019): Preferences for Continence Care Experienced at End of Life: A Qualitative Study - PubMed (nih.gov)

Fraser Health Bowel Care (Hospice palliative Care Program): 9524 (fraserhealth.ca)

Young, J. (2019): An evidence review on managing constipation in palliative care: EBSCOhost

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[7] Osmotic agents include polyethylene glycol (PEG)-based solutions, magnesium citrate–based products, sodium phosphate–based products, and non-absorbable carbohydrates. Through osmosis, these hypertonic products extract fluid into the intestinal lumen to soften stools and accelerate colon transit.

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APPENDIX 1: BOWEL PROTOCOL – ROUTINE PREVENTION INTERVENTIONS

Toileting

- Promote regular consistent toileting and help individuals to correct position for opening their bowels (see diagram below)
- Respond in a timely way to individual's urge to defecate, usually 30 – 60 minutes after a meal
- Offer fluids following toileting and at bedtime

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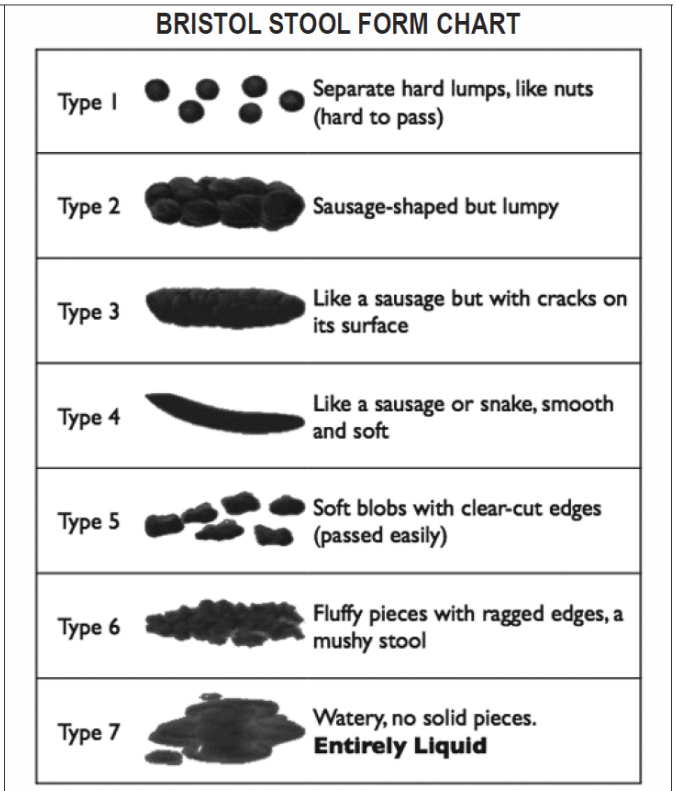

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Mobility

- Encourage walking at least 15 minutes / day for those with full or partial mobility
- Encourage walking at least 10 – 12 metres twice daily for those with limited mobility
- Assist individuals who are unable to ambulate to do as much turning or moving their limbs themselves while in chair / bed

Fluids

- Promote daily fluid intake 1,500-2,000 mL (30 mL/kg body weight) unless contraindicated or oral intake is decreasing as PPS declines
- Offer hydrating foods (e.g., fruit cocktail, yogurt) as tolerated
- Provide warmed fluids as this may increase peristalsis

Fibre enriched diet (20-30 grams of fibre daily as tolerated or unless contraindicated)

- Offer oatmeal, fruits, vegetables, beans, whole grain cereals, bran, flax as tolerated
- Psyllium products are not recommended in palliative care due to commonly decreased fluid intake.

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Appendix 2: Clinical Decision Making Information

The IH Palliative Bowel Protocol outlines a step-wise approach to titrating laxatives, which is best practice to attain a soft formed stool at least once every 2 to 3 days. Even in the absence of oral intake, the body continues to produce up to 50mL of stool per day. It is not necessary to have a bowel movement every day, but stools should be soft and easy to pass. Generally a bowel movement every 2 to 3 days as oral intake declines is within normal range. Three days without a bowel movement requires an intervention. Note that rectal laxatives (suppositories, enemas) should never be used when oral laxative prescriptions are not first optimized.

a) Information relevant to choosing laxatives listed in the bowel protocol:

Starting with a peristaltic laxative (e.g., sennosides) in escalating doses is common palliative practice. Adding an osmotic laxative agent can assist in keeping the stool soft, particularly as oral intake of fluids often decreases as illness advances leading to hardened stool. An osmotic laxative can reduce symptom distress associated with constipation but may not be effective on its own if/when bowel tone is low, which occurs frequently due to μ-opioid receptor saturation. The combination of both a peristaltic and osmotic diuretic may be required for some patients.

See linked references in Section 2 of this protocol to assist in choosing an individualized and effective osmotic laxative for opioid induced constipation.

Considerations:

- While studies indicate superior efficacy of PEG products, they are not covered under BC Pharmacare Plan P (Palliative Benefits) and are expensive.
- Lactulose and Magnesium Citrate, both alternate osmotic diuretics, are both available under Plan P.
- Magnesium Citrate comes in 150 mg capsules and is not to be confused with radiologic formulations for bowel prep (e.g. CitroMAG), which comes in 15 *GRAM* doses.
- Magnesium Citrate is an NMDA antagonist with reported associated pain and sleep benefits. It should be avoided for individuals in renal failure or eGFR < 30. (see literature in Section 2.0 above)

b) Clinical Decision Making about bowel care in the last days of life:

Oral laxatives are often stopped when palliative patients are no longer swallowing, stop drinking, or experiencing nausea and vomiting. Each patient situation of stopping oral laxative regimes should be assessed and addressed. For example, can the nausea and vomiting be treated and the bowel regime restarted if appropriate? If oral laxatives are stopped as the PPS declines and swallow reflex weakens, what are continuing bowel care needs of the patient? Nurses should continue to assess bowel function needs up to the last days of life and evaluate if constipation is becoming a source of symptom distress (e.g., bloating, pain, abdominal distension) vs. the intrusive nature of treatment (e.g., use of suppositories, enemas, manual disimpaction) causing any further symptom distress in last days and hours.