SASKATCHEWAN RN ASSOCIATION

SASKATCHEWAN REGISTERED NURSES' ASSOCIATION

RNs WITH ADDITIONAL AUTHORIZED PRACTICE
CLINICAL DECISION TOOL
DECEMBER 1, 2016

CONSTIPATION ADULT

DEFINITION

According to the Rome III criteria for functional bowel disorder, constipation is defined by the presentation of two or more of the following symptoms for at least 12 weeks, with onset at least 6 months prior to diagnosis.
Bowel disorder is associated with more than two of the following:

- Straining
- Lumpy hard stool
- Feeling of incomplete evacuation
- Feeling of obstruction or blockage
- Manually facilitating defecation ≥ 25% of the time

In addition, loose stools are rarely present without laxative use.

Consider constipation is chronic if lasting > 3 months.

IMMEDIATE CONSULTATION REQUIRED IN THE FOLLOWING SITUATIONS

Diagnosis of primary constipation is often clinical. There is little evidence for testing in clients < 50 years of age in the absence of alarm signs.

Indications for further consultation and testing:

- Acute onset (especially in elderly)
- Fever
- Nausea and/or vomiting
- Unintentional weight loss > 10 lbs (4.5 kg)
- Anemia
- Hematochezia
- Melena
- Positive fecal occult blood test
- Change in bowel habits
- Symptoms refractory to conventional therapy (regardless of age)
- Family history of colon cancer or inflammatory bowel disease (IBD)

Types
Primary (or idiopathic) constipation

- Ileus

Functional

- Includes chronic idiopathic constipation and constipation-predominant irritable bowel syndrome (IBS)
- Associated with difficult or delayed evacuation, hard stools, abdominal bloating, or discomfort
- Slow-transit (or delayed-transit): associated with prolonged time between bowel movements, lack of urge to defecate, abdominal distention, bloating, and discomfort.
- Outlet dysfunction (or defecatory disorder): associated with excessive straining and feeling of incomplete evacuation due to mechanical causes such as Hirschsprung's disease, anal stricture, cancer, prolapse, rectoceles, or pelvic floor dysfunction.

Combined forms: clients may have more than one type of primary constipation.

Secondary constipation can be due to diet, lifestyle, pregnancy, advanced age, medications, or underlying medical conditions.

- Constipation secondary to conditions or disorders, such as:
  - IBS
  - Diabetes mellitus
  - Hypothyroidism
  - Multiple sclerosis
  - Parkinson's disease
  - Pregnancy
  - Advanced age
  - Colon cancer and rectal cancer
- Constipation secondary to medication, such as:
  - Calcium channel blockers (CCBs)
  - Beta blockers
  - Opioids
  - Diuretics
  - Antidepressants
  - Anticonvulsants
  - Antacids
  - Anticholinergics

  - Antispasmodics

CAUSES

Cause is usually a combination of a diet low in fiber, decreased fluid intake, physical inactivity, and failure to respond to the urge to defecate.
Constipation can occur with poor oral intake; bowel produces its own "bulk" (from secretions and epithelial turnover).

Functional:

- Includes chronic idiopathic constipation and constipation-predominant irritable bowel syndrome
- Associated with difficult or delayed evacuation, hard stools, abdominal bloating or discomfort

Slow-transit (or delayed-transit):

- Prolonged time between bowel movements
- Lack of urge to defecate
- Abdominal distention, bloating, and discomfort
- Outlet dysfunction (or defecatory disorder, obstructive defecation)
- Associated with excessive straining
- Feeling of incomplete evacuation due to mechanical causes, such as:
  - Anal stricture
  - Rectal prolapse
  - Rectocele
  - Pelvic floor dysfunction
  - Anal fissure
  - Hemorrhoids
  - Ischiorectal abscess
  - Colonic rectal neoplasms

Most common cause of this subtype of chronic constipation may be pelvic floor dyssynergia (failure of pelvic floor and anal muscles to relax during straining).

PREDISPOSING AND RISK FACTORS

- Age > 65 years

- Low fiber diet
- Female
- Lack of physical activity
- Endocrine or neuromuscular disorder
- History of constipation in childhood
- History of abuse
- Depression or anxiety
- Family history of cancer

HISTORY

- Enquire about a feeling of incomplete evacuation, obstruction, and digital manipulation (disordered defecation), as well as infrequent bowel movements and abdominal bloating (slow transit).
- Consider testing CBC, electrolytes, BUN, creatinine, calcium, glucose, and thyroid stimulating hormone if symptoms persist despite conservative treatment.
- Clients with signs and symptoms of possible malignancy or complicated disease should have a colonoscopy.
- The initial management of symptomatic constipation is typically dietary modification, including a high-fiber diet, exercise, and fluid supplementation.
- Polyethylene glycol (PEG) and lubiprostone are effective for the management of chronic constipation.

Constipation is a symptom, not a diagnosis. A careful accurate history and physical examination is important to identifying fecal incontinence which can be a symptom of stool impaction.

Enquire about recent and past bowel habits including:

- Stool frequency
- Stool consistency
- Straining
- Need to manually disimpact
- Feeling of incomplete evacuation
- Patterns of rectal bleeding
- Pain
- Prolapse

- Onset, precipitating event if any
- Diet (fiber, fluid, frequency and timing of meals)
- Physical activity

Medication history
Enquire about medications that can cause constipation, such as:
- CCBs, especially Verapamil
- Beta blockers
- Opioids
- Diuretics
- Antidepressants, especially tricyclic antidepressants (TCAs)
- Anticonvulsants
- Antacids
- Anticholinergics (including dimenhyDRINATE [Gravol] and diphenhydrAMINE [Benadryl])
- Antispasmodics

Past medical history
Enquire about:
- IBD
- Colonic polyps
- Cancer of the colon
- Cancer of the breast, uterus, or ovaries
- IBS
- Anal fissure
- Diabetes mellitus
- Scleroderma
- Hypothyroidism
- Obstetric and surgical histories
- Back trauma
- Neurologic problems (multiple sclerosis, spinal cord injury)
- Psychiatric disorder
- Recent immobility

Family history
Enquire about:

- IBD
- Colonic polyps
- Cancer of the colon
- Cancer of the breast or uterus
- Varicosis

PHYSICAL FINDINGS

Abdomen:

- Distension
- Palpable colon with hard stool
- Non-fecal masses
- Surgical scars
- Right iliac fossa tenderness
- Palpable fecal mass (fecal reservoir)
- Left iliac fossa tenderness
- Mass on left side

Rectal:

- Perianal inspection for scars, fistulas, fissures, hemorrhoids
  - Observe perineum at rest and while client is bearing down to assess perineal descent (normal descent is 1-3.5 cm).
  - Descent < 1 cm may indicate inability to relax pelvic floor during defecation.
  - Descent > 3.5 cm may indicate laxity of perineum (possibly from childbirth or years of excessive straining during defecation).
- Digital rectal exam to feel for mass, stricture, or stool impaction, also note sphincter tone
  - Patulous anal sphincter may indicate trauma or neurologic disorder.
  - Difficulty inserting (or inability to insert) finger into anal canal suggests elevated pressure or stricture.
  - Tenderness of posterior of rectum may indicate spasm of pelvic floor.

DIFFERENTIAL DIAGNOSIS

- IBS

- Diverticular disease
- Intestinal bowel obstruction
- Rectal fissure
- Ileus
- Anal fissure or hemorrhoids
- Physical inactivity
- Multiple sclerosis
- Pregnancy
- Advanced age
- Cancer of colon, rectum, or other organ
- Diseases of the large bowel
- Endocrine problems (e.g., hypothyroidism, diabetes mellitus)
- Neurological diseases (e.g., Parkinson's disease)
- Constipation secondary to medication use (see list above)

COMPLICATIONS

- Chronic abdominal pain
- Hemorrhoids
- Anal fissure
- Fecal impaction
- Fecal and urinary incontinence
- Urinary retention
- Inguinal hernia from straining
- Intestinal obstruction

INVESTIGATIONS AND DIAGNOSTIC TESTS

- No testing is necessary unless alarm signs or symptoms are present and are suspect of a secondary cause for constipation.

MAKING THE DIAGNOSIS

- Usually no distress
- Client looks well
- Abdomen may be distended
- Tympany or dullness on percussion
- Bowel sounds normal but may be reduced in chronic constipation

- Bowel sounds normal to dull in left lower quadrant; sometimes similar findings in right lower quadrant
- Stool may be palpable in left or right lower quadrant
- Rome III criteria for diagnosis of constipation requires two or more of the following (considered chronic if symptoms last ≥ 3 months):
  - Straining
  - Lumpy or hard stools
  - Feeling of incomplete evacuation
  - Feeling of obstruction or blockage
  - Manually facilitating defecation during ≥ 25% of defecations
  - < three bowel movements/week
- Assess for secondary causes of constipation

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- Establish regular bowel function. Frequency will vary from client to client.
- Eliminate contributing factors
- Identify and manage underlying disease
- Prevent and treat complications (e.g., fecal impaction, hemorrhoids, anal fissures, rectal prolapse, fecal incontinence, bowel obstruction)
- Eliminate need to strain and prevent adverse effects of straining (e.g., hernia, gastroesophageal reflux, coronary and cerebral dysfunction in the elderly)

Appropriate Consultation

- Treatment failure
- Medication intolerance

Non-Pharmacological Interventions

- Ensure hydration status is adequate
- Dietary fibre intake of 20-30 g/day: bran, whole grains, fruits and vegetables, prune juice, stewed prunes and figs can be tried
- Discontinue medications with constipating effects if possible
- Minimize use of laxatives in primary constipation

- If constipation is due to opioid treatment for cancer, ensure use of adequate laxatives
- Encourage relaxation exercises for the pelvic floor and external anal sphincter muscles
- Increased physical activity

Pharmacological Interventions
To relieve initial constipation, medications may be required. Avoid starting client on a long-term course of laxatives.

Acute Constipation
For occasional mild constipation use hyperosmotic agents:
- Polyethylene glycol (PEG, PEG 3350, MiraLax, GlycoLax)
- These are not absorbed and lack electrolytes; a good option for clients with renal or cardiac dysfunction.

Sodium polystyrene sulfonate (Kayexalate) is not recommended for clients with renal disease.

Use of laxative agents:
- If client needs urgent relief, use osmotic laxative agents:
  - Magnesium hydroxide (Milk of Magnesia) 30-60 mL orally daily (may take in divided doses). Avoid if decreased renal function suspected.
  - Mineral oil
  - Lactulose 15-30 mL orally daily
- May add stimulant laxative for severe constipation that is not responding to osmotic laxatives:
  - Sennosides (Senokot) 1-2 tabs orally 1-2/day until establishment of bowel movements.
- It is also recommended to suggest a bulk-forming agent (must be taken with adequate fluids):
  - Psyllium (Metamucil) 1 tsp (5 mL) in 8 oz (250 mL) fluid orally 1-4/day
  - Begin bulk-forming agents with a single daily dose and increase frequency of dose every 2-3 days as tolerated
- If symptoms of difficult defecation are present, add:

- Glycerin suppository rectally, 1 or 2 prn daily; or
- Fleet enema rectally prn over 3-4 days.

When fecal impaction is present, manually disimpact as necessary. Use enemas (e.g., Fleet, saline, oil retention). Follow-up closely until regular bowel function is achieved.

Chronic Constipation
The following medications may be used in conjunction with non-pharmacological approaches:

- Step 1: Suggest a bulk-forming agent (must be taken with adequate fluids):
  - Psyllium (Metamucil) 1 tsp (5 mL) in 8 oz (250 mL) fluid orally 1-3/day
  - Begin bulk-forming agents with a single daily dose and increase frequency of dose every 2-3 days as tolerated
- Step 2: If client needs more urgent relief, add osmotic laxative agents:
  - Magnesium hydroxide (Milk of Magnesia) 15-40 mL orally daily. Avoid if decreased renal function is suspected. May cause cramping.
  - Lactulose 15-30 mL orally daily. This may increase bowel gas.
  - May add stimulant laxative for severe constipation that is not responding to osmotic laxatives, e.g., Sennosides (Senokot) 1-2 tabs orally 1-2/day until establishment of bowel movements.
- Step 3: If symptoms of difficult defecation, add:
  - Glycerin suppository rectally 1 or 2 prn daily.

Stepped-care approach to use of laxatives in elderly:

- Step 1 - Bulk laxative
  - Fibercon 2 tablets orally 1-4/day with 8 oz water after each dose, Citrucel or Metamucil 1 tablespoon orally 1-3/day with 8 oz water after each dose
  - Usually well-tolerated, may cause flatulence and bloating
  - Contraindicated if partial mechanical obstruction
- Step 2 - Stool softener
  - Dioctyl sodium sulfosuccinate (docusate sodium, Colace) 100 mg orally bid, Peri-Colace
  - Usually well-tolerated but minimal effect except to decrease straining
  - May be useful in bed-bound clients at risk of fecal impaction
- Step 3 - Saline laxative

- Agents - magnesium hydroxide (Milk of Magnesia) 30 mL orally/day, magnesium citrate 30 mL orally/day, Fleet enema 1 enema (118 mL) rectally
- Magnesium-containing laxatives: risk of hypermagnesemia with chronic use in renal insufficiency
- Phosphate-containing laxatives: risk of hypocalcemia with high doses
- Enemas: risk of traumatic and toxic damage to rectum

- Step 4 - Hyperosmolar laxative
  - Agents - lactulose 1-2 tablespoons orally 1-2/day
  - Usually well-tolerated, may cause transient bloating, may alter electrolyte transport and colonic motility
- Step 5 - Stimulant laxative
  - Agents - bisacodyl (Dulcolax) 5-15 mg/day orally, or 10 mg/day suppository, phenolphthalein 1-2 tablets/day orally
  - May affect electrolyte balance, may precipitate hypokalemia, fluid and salt overload, diarrhea, other adverse effects

Client and Caregiver Education

- Explain what constipation is and the ways of preventing it.
- Reinforce the importance of passing stool when urge presents as ignoring the urge decreases the sensitivity to the sensation over time.
- Encourage establishing a bowel routine of toileting after meals when colonic activity has been stimulated to help develop a conditioned reflex for bowel action (early morning after breakfast is the best time).
- Avoid prolonged straining on toilet.
- Avoid prolong sitting.
- Encourage increased physical activity for sedentary older clients.
- Advise client that bowel retraining may take months (patience and persistence are required and dietary changes must be maintained over the long term).
- Counsel client about the appropriate use of medications (dose, frequency, compliance, etc.).

Monitoring and Follow-Up

- Follow-up regularly every 2-4 weeks until regular bowel function is achieved. Bulk-forming agents should be maintained in the long term. When constipation is resolved, step-down therapy to the lowest level to maintain regular bowel

function.
- Docusate sodium (Colace) is a stool softener. It is better used in situations where straining needs to be avoided for a discrete period rather than as a laxative.
- Long-term use of stimulant laxatives (e.g., sennosides) and Fleet enemas should generally be avoided.

Referral
Refer to a physician/RN(NP) to arrange further investigation if:
- testing of stool for occult blood is positive.
- hemoglobin is low.
- there is evidence of other organic disease.
- constipation represents a new change in the bowel habits of a person > 50 years of age.
- the constipation is not resolving with appropriate treatment.
- severe straining at stool or a continued sensation of rectal fullness even when rectum is empty warrants a more thorough evaluation.

DOCUMENTATION
- As per employer policy

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