Office of Ombudsman for Mental Health and Developmental Disabilities

Bowel Obstruction Alert

This Medical Alert is based on the work of the Medical Review Subcommittee and should be posted prominently. The Office of Ombudsman for Mental Health and Developmental Disabilities works to improve the services provided to people with disabilities by communicating important information found in the Medical Review Subcommittee's reviews of deaths and serious injuries. Thank you for promptly reporting deaths and serious injuries. You are helping us to meet our mission.

Why be so concerned about maintaining normal bowel function?

Constipation is more than an annoying problem. People with chronic constipation report they feel that they have a lower quality of life. People who have only one or two bowel movements per week are more likely to have obesity, diabetes, diverticulosis, hemorrhoids, and colon cancer. Constipation may lead to complications including fecal impaction, ulceration, bowel obstruction, sigmoid volvulus (the bowel twisting in a loop), incontinence of stool, rectal prolapse, urinary retention, and even dizziness (and falls). Increasing intestinal distension (stretching of the intestines) may lead to loss of blood flow to the bowel, perforation, and tissue death. Untreated, a bowel obstruction can cause hypovolemic or septic shock and death.

Normal bowel function:

Doctors often define constipation as a stool (or bowel movement) frequency of less than 3 times a week. Normal frequency of bowel movements can range from 3 times a day to 3 times a week. The pattern of bowel movements can be considered normal if it does not represent a change in the client's usual frequency or character of stool and if passing the stool is not associated with discomfort (pain). Discomfort may be reported or observed as straining, hard stool, or feelings that client is unable to empty the bowel.

Normal stool in an adult or child (not infant) is brown, soft and formed. White or clay-colored stool, black/tarry stool, bloody, thin ribbon-like stool, narrow/pencil-shaped stool, hard or liquid stool usually is considered abnormal.

Medications can contribute to constipation.

This list is intended to give common examples and cannot include all current or future medications that can cause constipation.

Opioid analgesics - codeine (30 mg in Tylenol #3), fentanyl, morphine, oxycodone, hydromorphone, meperidine
Nonsteroidal anti-inflammatory drugs (NSAIDS) - Motrin/ibuprofen, Celebrex, Indocin, Toradol, Vioxx
Antacids - Amphojel/aluminum hydroxide, Tums/calcium carbonate
Anticholinergic drugs - Cogentin/benztropine, scopolamine (transdermal), methscopolamine, atropine, propantheline
Antidepressants - particularly lithium and tricyclics (like Elavil, Anafranil, desipramine, Pamelor, Tofranil/imipramine)
Antipsychotics - Clozaril, Risperdal, Zyprexa, Haldol, Seroquel, Mellaril, Thorazine, Abilify, Geodon
Antihypertensives - Captopril, Catapres/clonidine, Altace, Accupril, Inderal/propranolol
Antiarrhythmics - calcium channel blockers especially verapamil
Diuretics - Diamox, Lasix, Hydrochlorothiazide, Zaroxolyn, torsemide
Anticonvulsants - Klonopin, Cerebyx, Neurontin, Lamictal, Dilantin/phenytoin, Topamax, Depakote, Felbatol
Antihistamines - Benadryl
Anti-ulcer medications – Aciphex, ranitidine
Antilipidemics – Lipitor (atorvastatin), simvastatin, lovastatin, pravastatin

Maintaining Healthy Bowel Function:

Serve and eat foods high in fiber instead of refined carbohydrates and concentrated fats. Twenty to thirty-five grams of fiber is recommended each day. Beans, fresh vegetables, fruits (apples with peels, raisins, and prunes), nuts (almonds, Brazil nuts, peanuts, pistachios and walnuts), and cereals (bran and whole wheat and whole grain bread) are high in fiber. Some foods can act as natural laxatives: figs, prunes, pears, raisins, and rhubarb.

Added intake of liquids should accompany an increase in fiber intake. Adults need at least 8 glasses of non-caffeinated beverages per day, unless a fluid restriction is required because of a medical condition. Fruit juices and warm liquids can be helpful.

Age-appropriate exercise program. Clients restricted to bed may benefit from range of motion exercises.

Establish a routine for bowel movements that includes a regular time and privacy. A bowel movement is most likely to occur an hour after meals. Positioning is important while attempting a bowel movement. Squatting increases pressure on the rectum and encourages use of abdominal muscles. Use of a toilet, raised toilet seat, or a bedside commode is better than the use of a bedpan whenever possible.

Talk with your clients about healthy bowel function and the signs and symptoms that are important to report to a health professional.

Monitoring bowel function:

It is important for every facility and home health care program to have an established procedure for monitoring bowel function and responding to changes. Clients should be asked on a daily basis whether they have had a bowel movement. The information needs to be documented in order to learn the individual's normal routine and to monitor for the development of problems. Documentation on a flow sheet can facilitate monitoring. To be most useful, the following characteristics should be recorded:

- Continent/incontinent;
- Time and Date
- Nature of stool (normal-soft, formed, brown, not foul-smelling; hard, dry; watery, liquid; or pasty)
- Amount of stool - small, normal, large, x-large. [A sample flowsheet defined small as <250ml, normal >250ml to <500ml, and large as >500ml.]

Be sure to monitor the bowel function of clients who have had recent medication changes, changes in diet or activity level, surgeries, or injuries.

Since many clients are unable or unlikely to communicate verbally, staff must be skilled at detecting non-verbal signs of pain or discomfort.

SIGNS AND SYMPTOMS OF CONSTIPATION

- Change in bowel frequency (decrease) or consistency
- Soft, paste-like stool in rectum or hard stool with oozing liquid stool
- Feeling of rectal fullness
- Straining at stool
- Decreased or hyperactive bowel sounds
- Report of feeling abdominal fullness or pressure
- Distended (swollen) abdomen
- Indigestion
- Severe gas (flatus)
- Nausea
- Other - back pain, headache, decreased appetite

Factors that may contribute to constipation:

- Dietary factors – a low fiber (low residue) diet
- Not enough fluid intake or dehydration
- Inactivity and immobility - movement disorders, gait disturbance (difficulty with walking and balance), wheelchair use
- Environmental factors - lack of routine, lack of privacy, changes in routine
- Ignoring the urge to have a bowel movement (defecate)
- Structural abnormalities - hemorrhoids, tumors, narrow openings, anal fissures
- Smooth muscle or connective tissue disorders - amyloidosis, scleroderma
- Neurological disorders such as Parkinson's disease, spinal cord tumors
- Specific diseases or conditions such as depression, stroke, diabetes, thyroid disease, scoliosis, cerebral palsy, quadriplegia, paraplegia
- Metabolic/endocrine disorders - high calcium, low potassium, low or high thyroid hormones (hypothyroidism or hyperthyroidism), diabetes, Addison's disease
- Acute illness
- Frequent use or misuse of laxatives

When to see a doctor:

See your doctor if you experience an unexplained onset of constipation or change in bowel habits. Seek medical care if you experience any of the following signs or symptoms, which might indicate a more serious health problem:

- Bowel movements occurring more than three days apart, despite changes in diet and exercise
- Intense abdominal pain
- Blood in stool
- Constipation that alternates with diarrhea
- Rectal pain
- Thin, pencil-like stools
- Unexplained weight loss
- Swollen abdomen that does not go away
- Cannot pass stool or gas
- Vomiting

Treatments used for constipation:

- fiber supplements/bulk laxatives (psyllium or bran, Fibercon, Metamucil, Konsyl, Serutan, Citrucel)
- stool softeners (Colace and Surfak)
- stimulants (bisacodyl/Dulcolax, Correctol, or senna/Senokot)
- osmotic laxatives (Cephulac, Sorbitol, MiraLax)
- lubricants (mineral oil and Fleet), saline laxatives (milk of magnesia and Haley's M-0), and enemas.

With bulk laxatives and stool softeners, enough liquids must be taken to make them work.

Long term use of laxatives should be used only under the direction of a physician.

If an enema is ordered, it is important that staff are trained in proper technique as it is possible to perforate the colon during an enema. After the nozzle has been inserted into the rectum it should be pointed slightly posteriorly to keep the tip in the middle of the bowel lumen and avoid causing trauma to the anterior rectal wall. Note that discomfort is normal, but pain is not. After administration, any complaints of abdominal pain, rectal pain, or rectal bleeding must be promptly evaluated by the client's health care provider.

SIGNS AND SYMPTOMS OF A BOWEL OBSTRUCTION

- Abdominal pain and cramping - may be described as dull, squeezing or ill-defined, constant, or "colicky" (a sharp pain that may come and go)

- Abdominal distension - swollen abdomen may push on diaphragm and affect breathing
- Nausea and vomiting
- Decreased urine output (from dehydration which is possible even without vomiting)
- Constipation
- Fever, chills
- Abnormal bowel sounds
- Foul breath odor – often described as a "fecal" odor
- Inability to pass gas
- Diarrhea
- Vomiting

BOTTOM LINE

The symptoms of constipation and bowel obstruction can look like "the flu" and look like each other.

It is possible for a client to have loose stool (diarrhea) and still have constipation or a bowel obstruction.

Do you have the necessary staff training and procedures in place to reduce the likelihood of a bowel obstruction being detected too late?

The following three case studies are taken from the records of client deaths reported to the Office of the Ombudsman for Mental Health and Developmental Disabilities.

Could This Happen to Your Client?
Case Studies

#1. A 42-year-old male, with mild mental retardation, personality disorder, duodenitis, hiatal hernia, hearing impairment, and other medical conditions, was transferred from a state facility to his community hospital after becoming acutely ill with ashen appearance and fever. The client had been having nausea and vomiting for 3-5 days. Within 5-10 minutes of his arrival at the Emergency Room, the client needed CPR. He was unable to be resuscitated. An autopsy showed that the client died because part of his small intestine had decayed due to a lack of circulation (infarction of the terminal ileum) due to a small bowel obstruction.

The client was on 5 medications that can cause constipation: Lipitor, Felbatol, Inderal, Aciphex, and Risperdal.

#2. An 8-year-old boy, with developmental delay, seizure disorder, cerebral palsy, and congenital hydrocephalus with a shunt, died of sepsis and toxic megacolon. He had lived with his parents and received PCA services. Three of the medications he received can cause constipation: Dilantin, Lamictal, and Motrin (ibuprofen).

The child's father brought him to the clinic for a fever of 101.8°F. The fever had been occurring intermittently over the previous week. The patient was prescribed an antibiotic (along with his usual seizure meds) for possible ear infection. Children's Motrin had been used to control the temperature, but the patient was having some trouble getting his medication down.

When his doctor could find no reason for the continuing fever, the client was given another antibiotic for a possible sinus infection.

One day later, the child's mother called the doctor to say that he had very little intake of food or fluids, no urine output, and increased frequency of stool. The client was admitted to the hospital to be given IV fluids and for further evaluation. His abdomen was slightly distended (swollen), but not rigid, and there did not appear to be any tenderness. His doctor planned to continue IV fluids and antibiotics and to consider x-rays of the abdomen if the distension became worse.

During the night, the patient continued to run elevated temperatures that required the use of a cooling blanket. The nurses reported that the child's abdominal distention became much worse, and the child had a guaiac positive emesis.

(When the child vomited, his vomitus was tested and found to contain blood.) His doctor was called at 5:00 AM. The doctor ordered labs, a surgical consult, and an abdominal x-ray, but the child died at 5:27 AM.

#3. A 48-year-old man, with schizophrenia, emphysema, hepatitis, and a seizure disorder, died of a small bowel obstruction, renal failure, and multisystem organ failure. Prior to his death he lived in his own apartment and received case management and job coordination services. He was taking 3 medications that can cause constipation: Clozaril, Risperdal, and Cogentin.

He was admitted to the hospital with complaints of cachexia (weight loss, poor nutrition, wasting), abdominal pain, and shortness of breath. X-rays showed a small bowel obstruction. Medications were tried, but the client required surgery. Complications from his first surgery required a second surgery. The client was unable to recover from his surgeries and died.

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