BOWEL MANAGEMENT DECISION-MAKING FRAMEWORK for nurses and care staff caring for people with advanced dementia

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SECTION ONE: FRAMEWORK OVERVIEW

All health professionals must use their own professional judgement when using this framework and associated resources. Any decision to vary from this framework should be documented in the resident's records to include the reason for the variance and the subsequent action taken.

1.1 Introduction to the bowel management framework

Timely assessment and management of symptoms is a major component of a palliative approach to dementia care. This framework provides a process to adopt to assess and manage bowel care in residents with advanced dementia, and is based on the best available evidence, or in the absence of evidence, expert opinion.

Use of this framework will assist nurses and care staff to improve their assessment and management of bowel problems; and improve the well-being of residents, per Guidelines 36-39 of the Guidelines for a Palliative Approach in Residential Aged Care (Enhanced Version, 2006).

It is recommended that in conjunction with the use of this framework, all nurses and care staff:

- refer to bowel care within Section 6: Physical Symptom Assessment and Management in the Guidelines for a Palliative Approach in Residential Aged Care;
- complete the Palliative Care Australia on-line Symptom Management module, available to support the use of the Guidelines, from www.pallcare.org.au. Select the ‘Aged Care’ option, then select ‘Aged Care Resources’, then ‘Training Resources’ for the Guidelines;
- complete the ‘bowel care’ section of Topic 5: Symptom control, which is one topic within the Palliative Care Australia Competency unit: CHCPA01A Deliver care services using a palliative approach, available from Palliative Care Australia.

1.2 Competencies required

This framework is for the use of both registered nurses and care staff within residential aged care facilities.

All nurses and care staff have a responsibility to ensure they are competent to assess and manage bowel problems experienced by residents, within their scope of practice. Nurses and care staff who are concerned they do not have adequate levels of competency should discuss their concerns with their managers, so that additional training can be arranged for them.
1.3 Scope of this framework

The purpose of this framework is to provide best practice evidence, or in the absence of evidence, expert opinion, to enable nurses and care staff in residential aged care facilities to:

- monitor all residents with advanced dementia for bowel problems;
- assess the resident if bowel problems occur, using appropriate tools and techniques;
- treat identified bowel problems, per the goals of care for the resident.

1.4 Using this framework

This framework provides a comprehensive method of assessing, managing and evaluating bowel care for residents with advanced dementia.

1. Assessing bowel care needs of residents

All residents with advanced dementia require a comprehensive assessment of their usual bowel function:

- on admission;
- any time a significant change in bowel function occurs;
- annually, and whenever required for Aged Care Funding Instrument (ACFI) purposes.

2. Managing daily bowel care

- assume every resident with advanced dementia is at high risk of developing constipation;
- use preventative strategies whenever possible.
- continuously evaluate the bowel function of the resident, and immediately treat any problems that develop.

The desired outcome for the resident is improved quality of life. The goal is that the resident passes a soft, formed bowel movement every one to two days. To successfully achieve this goal:

- record every bowel movement accurately on a Bowel Management record form. Include the amount (size) of the stool; the form (consistency or type) of the stool using the Bristol Stool Form Scale; and any abnormalities of the stool;
- follow the flowcharts in the ‘Guidelines for nurses and care staff’ provided with this document to treat any abnormalities. An abnormality is any stool which is not an easily passed type 3 or 4 stool (per the Bristol Stool Form Scale. See page 37 for further information).
Best practice bowel care may need to include intrusive procedures such as digital rectal examination, administration of suppositories and enemas, or manual removal of faeces. In the context of advanced dementia, while every effort should be made to reduce the likelihood of these procedures, there are times when they may be necessary. Under these circumstances, nurses need to be clear about their professional responsibilities, and be confident that they are competent to safely undertake these procedures, subject to the policies adopted by the residential aged care facility that they are working in.
SECTION TWO: NORMAL AND ABNORMAL BOWEL FUNCTION

KEY POINTS

- Older people experience slower colonic transit times; lower anal canal pressure; and impaired rectal sensation. These changes may increase the risk for constipation and faecal incontinence in older people;

- factors associated with ageing such as immobility, medications and comorbidities also increase the risk of bowel problems such as constipation occurring;

- people with vascular dementia, Lewy Body dementia and dementia associated with Parkinson’s Disease are more likely to experience constipation. However, assume every resident with advanced dementia is at high-risk of developing constipation;

- untreated bowel problems can be fatal to an older person, and require immediate attention. It is absolutely imperative that the bowel chart of each resident is checked at least once every 48 hours to monitor for potential problems;

- prevention of bowel problems, by using non-pharmacological methods, is the best bowel management strategy to use;

- bowel management may be complicated by a past history of laxative abuse spanning decades. In this case, relying only on prevention strategies may not be sufficient to manage bowel problems;

- laxatives may be required, either on an ‘as needed’ basis, or regularly as part of a bowel management program.
2.1 NORMAL BOWEL FUNCTION

Introduction

People with dementia are at higher risk of certain bowel problems, including constipation, faecal loading /impaction and faecal incontinence. Bowel problems reduce the quality of life of the affected person. Careful assessment and management of residents is required, especially for residents with advanced dementia who are unable to communicate their discomfort due to dementia progression. It takes more resources (time, money) to treat bowel problems once they develop than to prevent them in the first place.

Research into best practice bowel management in older people is very limited. Much of the information in these guidelines is based on expert opinion.

Basic anatomy and physiology of the lower gastro-intestinal system

In total, the large intestine (colon) measures 145cm-150cm. The final section of the colon includes the descending colon (10 to 15 cm); the rectum (approximately 12cm); and the anal canal (approximately 3 to 5cm).

Function of the colon

The main function of the colon is to absorb fluids and electrolytes; and to propel and expel the colonic contents. Muscular and neurological activity are involved in the process of normal defecation. Faeces is held in place in various sections of the large intestine by a series of valves and anatomical folds, and internal and external sphincters. The faecal contents are mixed together by segmental contractions within the colon, then peristaltic waves cause mass movements to occur, when segments of colon approximately 20cm long contract in unison to force the waste material further down the colon towards the rectum.

Most propulsion in the caecum and ascending colon results from slow, persistent mixing (or haustral) contractions, with the waste material slowly becoming semisolid slush instead of semifluid. Once the waste material reaches the transverse colon then mass movements take over propulsion. Mass movements usually occur one to three times per day, usually after meals, and are strongest for about 15 minutes in the first hour after breakfast. They persist for only 10 to 30 minutes, then may not return for 12 to 24 hours. When faeces is forced into the rectum, the urge to defecate is felt.

Increased intra-abdominal pressure, generated by sitting or squatting, opens the sigmoid valve and rectal vault, while muscles bring the anal canal into a straight passage allowing for relaxation and elimination of the stool. The anal internal membrane is highly sensitive, and can distinguish between solid, liquid and gas, and has sufficient voluntary control to allow the appropriate passage of flatus (wind) while maintaining continence for solids and liquids.
Normal transit times through the colon vary with each individual, with the total colon transit time being normally approximately 44 hours for males (range 15 to 74 hours); and 68 hours for females (range 14 to 123) \(^8\). During transit through the colon fluids, electrolytes, and other nutrients are reabsorbed \(^7\). Transit times are affected by diet, exercise, time of day, and changes in the individual’s normal surroundings \(^9\).

For further details of the anatomy and physiology of the digestive system, consult a textbook of anatomy and physiology of the human body.

**Changes to bowel function that occur due to ageing**

The amount of evidence is scant in this area, however:

- advanced age does not influence gastric emptying or small intestine motility, but older subjects do experience slower colonic transit times \(^10\);
- changes may be due to comorbid conditions, immobilisation and medications rather than ageing itself \(^11\), \(^12\);
- anal canal pressure is lower in older people, especially older women, which may increase the risk of faecal incontinence to the older person \(^13\);
- impaired rectal and perianal sensation in older constipated people occurs, although sensation appears to remain intact for non-constipated people. This means that significantly larger volumes of rectal distention are required to stimulate the normal urge to defecate \(^13\). Stool that remains in the rectum for longer periods becomes drier and harder as fluid is absorbed from it, thereby increasing the likelihood of an affected person straining to pass hard, pellet like stool types (Bristol Stool Form Scale Types 1 and 2).

**Changes that occur due to percutaneous endoscopic gastrostomy (PEG) feeding**

Transit time from stomach to caecum is slower when PEG feeds are used.

**Changes that occur due to spinal cord injury**

Information relating to common bowel problems associated with spinal cord injuries (neurogenic bowel) can be retrieved from:

2.2 CONSTIPATION & FAECAL IMPACTION

Constipation

Definition of constipation

One simple definition of constipation is:

“Difficulty, or straining, in defecation and infrequent bowel movements over an extended period of time. Symptoms associated with constipation include hard/dry stool, bloating and abdominal pain.” 14 p1

Constipation is a symptom of underlying problems relating to a resident’s health, not a specific disease 7.

Normal bowel function frequency ranges between three bowel movements per day to three bowel movements per week, although recall among people reporting their bowel actions is unreliable 15.

Orr and Chen 11 note that there are two persistent problems affecting research into constipation: the definition of constipation and the unreliability of recall reports of bowel function. People affected by constipation tend to emphasise symptoms such as pain (usually colicky in nature) and straining rather than the frequency of their bowel movements 14. Sixty-five percent of older people in one study reported being constipated despite having their bowels open at least once per day 6. Despite this finding, if a resident is able to report he/she feels constipated this complaint should be taken seriously and the bowel chart checked 15, and other assessments undertaken if necessary. The resident may be passing small amounts of hard stool and is indeed constipated.

Types of constipation 4, 16

- Functional constipation, where the bowel is essentially normal, commonly caused by lack of fibre, lack of physical activity, certain medical conditions, and some medications;

- Slow transit constipation, where the nerve supply to the bowel is abnormal, resulting in abnormal bowel contractions, thus slowing the stool as it passes through the bowel. This is an uncommon condition;

- Pelvic floor dyssynergia, where there is a lack of coordination between the abdominal muscles used in pushing the stool out, and the muscles in the pelvis that hold the stool in;

- Constipation associated with irritable bowel syndrome 17.
Establishing the presence of constipation

‘Subjective constipation’ is established via self-report by the affected person, in the absence of symptomatic or clinical constipation\textsuperscript{18}.

‘Clinical constipation’ is established in two ways: by finding faecal retention in the rectal ampulla during a digital rectal examination; or by the appearance of excessive faecal retention on abdominal x-ray.\textsuperscript{18} Note that a regular, ACCURATE documentary record of bowel movements, including type (form) and amount of stool, is also a guide to the diagnosis of clinical constipation.

In residents with advanced dementia, the presence of constipation will need to be established by both the documented evidence from the bowel chart, and in certain circumstances, via digital rectal examination and abdominal x-ray.

Prevalence of constipation in the general population

Estimates of the prevalence of constipation reveal that in western countries, between 10\% and 25\% of the population strain while passing stools more than 25\% of the time\textsuperscript{19}; while 6\% of participants in one large Australian study (15,000 adults) reported infrequent bowel motions\textsuperscript{20}. Among older people the prevalence is higher than that of the general population, with a range of between 19\% and 40\% of elderly people reported to be experiencing constipation\textsuperscript{13}. Older women report constipation more often than older men\textsuperscript{21}, the self-reported prevalence of constipation among Australian women aged 70-75 years was 27\% in one study\textsuperscript{22}.

Constipation in residential aged care facilities

Constipation is a common problem among people living in residential aged care facilities. Robson, Kiely & Tembo\textsuperscript{23} reviewed data from over 21,000 residents in nursing homes in the USA. They found that on admission the prevalence of constipation was 12.5\%. Three months after admission, 7\% of residents who were not constipated on admission were found to have developed constipation.

Phillips, Polakoff, Maue & Mauch\textsuperscript{24} found in an audit of 25 facilities, that while only approximately 28\% of residents had a documented diagnosis of constipation, over half of all participating residents (53.8\%) were receiving routine laxatives. This study excluded residents with Alzheimer’s disease.

Constipation in dementia

Due to the impact of the dementia disease process on the autonomic nervous system, people affected by:

- Parkinson’s disease dementia;
- dementia with Lewy bodies; and
- vascular dementia

experience more constipation \(^{25, 26, 27, 28}\).

**Factors that increase the risk of constipation**

The causes of constipation are inconclusive \(^{29}\); however, constipation is not a normal part of ageing \(^{30}\). Factors that increase the risk of constipation can be classified into three categories \(^{31-34}\):

**Primary factors**, due to extrinsic causes that originate outside the body:

- inadequate fluid intake;
- inadequate amounts of dietary fibre;
- poor bowel habits;
- immobility;
- lack of privacy when using the toilet;
- ignoring the urge to defecate.

**Secondary factors**, due to anatomical abnormalities, metabolic or endocrine disturbances, or pathological processes:

- pelvic conditions including hysterectomy; ovarian tumour; uterine prolapse; pregnancy; hernias; pelvic floor disturbances \(^{12}\);
- colorectal conditions including irritable bowel syndrome; Crohn’s disease / diverticulitis / ulcerative colitis; colorectal tumour; anorectal stricture / fissure / abscess / prolapse; haemorrhoids; faecal impaction; ileus;
- neuromuscular disorders including Parkinson’s disease; multiple sclerosis; systemic sclerosis; loss of innervation (Hirschsprung’s disease); cerebrovascular accident / spina bifida / cerebral tumour; rheumatoid arthritis; spinal cord injury, including due to malignant cord compression, or sacral lesion; neuropathy associated with loss of sensation eg diabetes;
- endocrine disorders including diabetes mellitus; hypothyroidism; hypopituitarism; hypercalcaemia;
- metabolic disorders including hypokalaemia; uraemia; lead poisoning;
- psychological conditions such as depression (NB constipation may be an atypical presentation of depression \(^{35}\) ; anorexia nervosa; bulimia nervosa; dementia; learning disabilities;
- electrolyte imbalances;
- hormonal abnormalities;
- in residential aged care facilities, residents with pneumonia, or a history of allergies may be at increased risk of constipation \(^{23}\).
Iatrogenic factors, due to medications \(^{36}\):

- opioids; iron; diuretics; tricyclic antidepressants; antipsychotics; antiparkinsonians; antihistamines; antispasmodics; anticonvulsants; antiemetics; nonsteroidal anti-inflammatory medications; antihypertensive medications (e.g., calcium-channel blockers) and aluminium antacids \(^{36, 37}\). A more detailed list is available in the Appendix to this document;
- past laxative abuse.

Factors significantly associated with the development of constipation (in descending order of importance) in nursing homes in the USA were \(^{23}\):

- being of white race;
- decreased fluid intake;
- pneumonia;
- Parkinson’s disease;
- allergies;
- decreased bed mobility;
- arthritis;
- taking more than 5 medications;
- dementia;
- hypothyroidism;
- starting new medications;
- decreased activity time;
- hypertension;
- congestive heart failure;
- having a feeding tube.

Consequences of untreated constipation

Untreated constipation results in reduced quality of life, and may lead to:

- bladder outlet obstruction \(^{6}\);
- urinary tract infection;
- impaction with overflow incontinence;
- bowel obstruction;
- or the formation of stercoral ulcers with increased risk of bowel perforation and death\(^{38}\). A stercoral ulcer is an ulcer of the colon due to pressure and irritation from retained faecal masses. Classically they occur within the sigmoid colon and rectum, but have been reported in all segments of the colon. Ulcers may range in size from a few millimetres to several centimetres in diameter. Ulcers can perforate the bowel;
- chronic constipation appears to be associated with an increased risk of colorectal cancer \(^{39}\).
Signs and symptoms of constipation

Most residents with advanced dementia (MMSE <10) will be unable to self-report symptoms of constipation, therefore careful assessment and accurate documentation is imperative. Constipation is more easily confirmed in a resident that experiences a significant change in their normal bowel habit. A constipated resident may not look distressed.

One sign of constipation in an individual with advanced dementia may be physical aggression 40.

Suspect constipation if:

- the resident’s behaviour changes, and he or she displays increased agitation, physical aggression, or discomfort of unknown cause. Changed behaviour such as trying to climb out of bed repeatedly may be a sign that the resident is constipated;
- the resident displays signs such as straining while defecating, or his or her abdomen is distended, or the care staff document that hard, lumpy stools are present in the toilet or incontinence pad (Bristol Stool Form Scale types 1 & 2 2, 41);
- the resident has been physically unwell, and there is likelihood that the fluid or fibre intake has been reduced;
- maintain a high index of suspicion that a resident may be constipated if the resident’s bowel chart has not been completed for 2 days;
- delirium may be the presenting symptom, especially if associated with dementia18. In this instance the resident may show a sudden change in his or her level of alertness, with either an increase or decrease in behaviours.

If the resident is passing small amounts of loose faecal-stained fluid, they may have been constipated, and have become impacted with overflow. Overflow occurs when stools liquefy behind impacted faeces. The fluid then seeps past the faecal mass. The passing of liquid faecal matter, often associated with faecal incontinence, is evidence of overflow. See below for further information relating to faecal impaction.

A resident who is still able to verbally communicate may complain of discomfort due to:

- rectal pain on defecation;
- feelings of incomplete emptying after bowel movements.

‘Red alert’ signs associated with constipation

A significant change in bowel habit, which may include the sudden onset of constipation, associated with unexplained weight loss, rectal bleeding and/ or iron deficiency anaemia, especially if there is a family history of bowel cancer, should be referred to the resident’s general practitioner for possible further investigation 35. Investigation and treatment will depend on the goals of care for the resident. If bowel
cancer is suspected, and the decision is made that no investigation will be undertaken, then a family conference to discuss future palliation of symptoms should be immediately arranged.

**Faecal impaction**

**Definition of faecal impaction**
There is no clear definition of when constipation changes to faecal impaction, due to the paucity of research into the topic. Chen et al (2005) defined *severe constipation* as 'no bowel movement for three to four days' and faecal impaction as:

‘no bowel movement for at least five days’ 42.

Faecal impaction is usually considered to be present when there is a large mass of compacted faeces in the rectum or higher in the colon. It is caused in a constipated person by colonic peristalsis that continues to pack the loaded rectum with stool, (which forms into a large mass or bolus that loses water and hardens), then cannot be passed. The term *‘faecal loading’* is sometimes used instead of faecal impaction, and describes excessive amounts of faeces in the large bowel, irrespective of whether the faeces is hard or soft.

**Prevalence and Incidence**

The incidence, mortality and morbidity of faecal impaction are unclear. One study reported approximately 4% of hospitalised older people experienced impaction 43; while an earlier study revealed that up to 42% of elderly patients admitted to geriatric units from nursing homes in the US 44 were faecally impacted. Shua-Haim et al (1999) recommend that impaction be considered in any high-risk resident who has less than one bowel movement every second day, or who experiences change in the frequency or consistency of the bowel movement, or who experiences clinical deterioration 18.

Take immediate action if a resident with advanced dementia is impacted with faeces.

**Signs and symptoms of faecal impaction**

The presentation of faecal impaction is often subtle and non-specific. Symptoms may include:

- anorexia;
- nausea, vomiting;
- abdominal distension and pain;
- passing faecal-stained fluid (overflow);
- urinary frequency;
- urinary retention. If the resident has urinary obstruction then leucocytosis is usual, and the creatinine level may be elevated 18; a urinary tract infection may be present;
- tachypnoea and delirium.
Creason and Sparks 43 reviewed the literature relating to faecal impaction, and noted that other signs and symptoms reported in case studies included:

- chest pain while straining during a bowel movement, unrelieved by nitroglycerin;
- normal to hyperactive bowel sounds;
- rectal bleeding;
- feeling weak and ‘out of sorts’;
- bladder pressure and spasms which may lead to extrusion of a catheter.

Chest pain may be due to pockets of air trapped under the diaphragm. Reflux may also be present, which will increase the risk of aspiration pneumonia, especially in a resident receiving PEG feeds.

**Faecal impaction and autonomic dysreflexia**

In people with spinal cord injury above T6, but sometimes between T6 and T10, faecal impaction may result in symptoms of autonomic dysreflexia: intense headaches, sweats and chills, rapid heart beat and increased blood pressure 43. Autonomic dysreflexia is a medical emergency requiring immediate attention: if unresolved, the affected person may experience a serious medical condition such as cerebral haemorrhage, seizure or cardiac arrest.

If autonomic dysreflexia occurs in a resident who is receiving a palliative approach to care, it is important to take into consideration the goals of care for the resident, and any advance health care directives, before instituting treatment.

**Preventing and treating constipation and faecal impaction**

A stepwise approach to constipation management is useful. Steps include:

- initially increasing the preventative factors (dietary fibre, fluids, exercise, toilet habits) if possible. If ineffective then:
- use iso-osmotic, softening and stimulant laxatives for bedbound residents, and residents on opioids:
- if impaction is confirmed, use an oral laxative, such as an iso-osmotic. If the resident is debilitated, use an enema such as an olive oil & coloxyl retention enema to lubricate the stool, followed by a high osmotic or stimulant enema next day. The enemas may need to be repeated to obtain effective bowel clearance. Refer to the ‘Guidelines for nurses and care staff’ provided with this document for further information.
Wallis \(^{46}\) notes that there is no compelling evidence that one laxative is better than another and recommends using the cheapest laxative in a class first, changing if the laxative is ineffective or causes side effects.

**Non-pharmacological methods to prevent constipation**

These non-pharmacological methods should be used whenever possible to prevent the development of constipation. Cognitively intact residents have reported they prefer to use non-pharmacological methods of preventing constipation \(^{1}\); the same should be assumed for cognitively impaired residents with dementia.

**Bowel Training**

Take advantage of residents’ natural gastrocolic reflex by taking them to the toilet first thing in the morning when the bowel is more active, or 30 minutes after meals. Give the resident as much privacy as possible. The correct sitting position on the toilet is leaning forward so that the hips are flexed > 90 degrees, with the forearms resting on the thighs and the back straight. This position may be impossible for some residents to achieve, in which case, position the resident so he or she is sitting comfortably and safely, with the feet supported on a footstool.

**Dietary Fibre**

Research into the use of dietary fibre does not demonstrate definitively that dietary fibre is effective in preventing constipation \(^{47}, 48\). A recent (2006) systematic review undertaken in the UK and summarised by the Joanna Briggs Institute found that increased dietary fibre in the form of combination products that include fruit mixtures are effective in preventing constipation. This finding was based on expert opinion \(^{49}\). If kiwifruit is eaten regularly a softer, more bulky stool is more likely \(^{50}\).

The importance of using dietary fibre in combination with fluids for immobile older people is emphasised. Wald \(^{51}\) cautioned against increasing dietary fibre intake indiscriminately, especially for immobile residents. Adequate fluid intake is required if increased dietary fibre is offered to residents, or the risk of faecal impaction will increase \(^{49}\). Example recipes for increasing fibre in resident’s diets are available in the Appendix to this document.

The recommended intake of dietary fibre for healthy older people is:

- 30g/day for men aged over 70 years;
- 25g/day for women over 70 years of age.

Increase dietary fibre slowly, by adding an additional 5g fibre per day each week until the desired amount is reached, to prevent excessive flatus and bloating \(^{4}\).

Fibre supplements such as bulk-forming agents should be used with caution. People with certain types of constipation, including constipation-predominant irritable bowel syndrome and idiopathic slow transit constipation do not improve with fibre.
supplements. Do not give bulk-forming agents to a resident unless the resident is definitely drinking 8-10 glasses (1.6 litres minimum) of fluid each day.

**Fluids and dehydration**

The consensus recommendation of a group of geriatric specialists from the US who reviewed the available evidence is that increases in fluid intake do not appear to relieve chronic constipation, except in people who are dehydrated. Older people can become dehydrated quite easily, because they have impaired thirst mechanisms, and their kidneys conserve less water. Additionally, an older person with advanced dementia will not have the capacity to ask for a drink. Dehydration is one of the most common factors leading to death in the final stages of dementia, therefore avoiding constipation is a necessary part of the palliative approach to care for any resident with dementia.

Solid foods such fruits and vegetables (which contain 95% water by weight) can contribute 2 to 4 cups of water per day to the diet. The recommended intake of water (over and above the water available from foods and by-products of metabolism) for older people in residential aged care is a minimum of 1600ml every 24 hours. This is approximately 8 glasses or cups (200ml size) per day. In certain conditions such as heart failure this amount of fluid may need to be restricted.

A review by Maughan & Griffin (2003) reported that caffeine found in standard servings of tea, coffee and carbonated soft drinks had no diuretic actions and thus there was no clear basis for stopping caffeinated fluids as part of the resident’s fluid intake.

Nursing assessment of dehydration can include keeping an accurate fluid balance chart for 24 hours. This is very difficult with incontinent residents. Undertaking a urinalysis to test the specific gravity of the urine is recommended. A specific gravity value of greater than or equal to 1.020 implies an underhydrated state and requires further monitoring. Observing for signs such as longitudinal tongue furrows, sunken eyes, dry mucus membranes, upper body muscle weakness, speech difficulty and additional confusion are also important.

**Tips for promoting hydration:**

- for residents who do not recognise a cup or glass placed on the table, put the glass in the resident’s hand and model what needs to happen;
- milk and fruit drinks are more easily seen in clear drinking glasses;
- use small cups or tumblers, they are easier to manage;
- prompt the resident to remind him to drink regularly;
- develop strategies to promote hydration tailored to assist the staff giving care. Eg if a staff member is handing out carafes / jugs of water, have them pour a glassful for the resident at the same time;
- cognitively impaired residents might respond better if they are offered a choice of drinks when being prompted to drink.
**Exercise**

There is no consistent evidence that regular exercise relieves constipation \(^{58}\), although low levels of exercise are associated with an increased risk of becoming constipated. Encourage residents to mobilise if they are able to do so safely.

**Abdominal massage**

Abdominal massage of the ascending, transverse and descending colon may assist in regulating bowel movements and decrease the need for laxatives \(^{59-63}\).

Further information relating to the procedure for abdominal massage is available in the ‘Guidelines for nurses and care staff’ provided with this document.

**Pharmacological methods to prevent or treat constipation: Laxatives**

Laxatives can be classified as bulk-forming laxatives; stimulant laxatives; osmotic laxatives; stool softening laxatives; and lubricant laxatives. There are also combination laxatives \(^{64}\). (See Table 1 for additional information). These laxatives should usually be given once daily \(^{65}\). Discuss the best bowel management strategy for a resident with constipation with the general practitioner involved in the care \(^1\).

**Bulk-forming agents**

Psyllium husks, ispaghula and sterculia are bulk-forming agents that increase faecal mass and soften consistency of the stool. These agents should not be used unless adequate fluid intake is assured. Adequate fluid intake, as described above, is 8-10 glasses (1.6 litres minimum) of fluid per day. An accurate fluid intake chart may be required to confirm that the resident is actually drinking sufficient fluids, before commencing bulk-forming agents. A resident who is given bulk-forming agents without sufficient fluids will become constipated. The Guidelines for a Palliative Approach in Residential Aged Care. Enhanced Version cites evidence that there are no contraindications for using bulk-forming agents with older, immobile residents. Overuse of other classes of laxatives may result in diarrhoea in bedbound, immobile older people; by adding a bulk-forming agent the incidence of diarrhoea may decrease \(^{1\ p107}\).

Bulk-forming agents should not be used if intestinal obstruction is present; if the resident is impacted with faeces; or the resident has dysphagia \(^{65}\).

**Stool Softening laxatives**

Stool softening laxatives eg docusate act by decreasing surface tension, allowing the stool to absorb more water \(^{65}\). They are advantageous when straining is a hazard,
although they are ineffective in drug-induced constipation. They produce a soft, moist faecal mass. Stool softening laxatives are available in combination with stimulant laxatives.

**Osmotic laxatives**

Osmotic laxatives work on the colonic lumen to retain and draw water into the intestine by osmosis; and increase faecal acidity. **Residents being given any osmotic laxative MUST drink 8-10 glasses of fluid each day, and be monitored for electrolyte disturbances.** Symptoms such as oedema; shortness of breath; increasing fatigue; dehydration; and cardiac failure are evidence of electrolyte disturbance. Osmotic laxatives are contraindicated for really debilitated residents, and for residents required to have a restricted fluid intake e.g. due to heart failure. An accurate fluid intake chart may be required to confirm that residents are actually drinking sufficient fluids if they are given osmotic laxatives.

**Iso-osmotic laxatives**

Macrogol\(^1\) 3350 (**Movicol** ® and **Movicol-Half**®) are iso-osmotic laxatives. This means that provided the sachet of active ingredient is mixed with the correct amount of fluid (125ml for **Movicol**®, 60ml for **Movicol-Half**®), they will not draw water out of the resident’s body as an osmotic laxative would. Therefore, the resident does not need to consume additional fluids, but does need to be given the macrogol 3350 correctly. Iso-osmotic laxatives act more quickly than osmotic laxatives, and are useful for treating faecal impaction.

For constipated or impacted residents with swallowing problems, it is important to note that **Movicol**® can be thickened before use. Directions for thickening **Movicol**® are in the Appendix attached to this document.

**Stimulant laxatives**

Stimulant laxatives eg **Senokot**®, **Durolax**®, alter electrolyte transport in the intestinal mucosa and increase colonic motility. They act by stimulating the longitudinal muscles of the gut, resulting in peristaltic action. Stimulant laxatives are useful for constipation due to opioids. Concerns that stimulant laxatives should only be used for short-term treatment of constipation have recently been dispelled, with evidence suggesting that constant use of stimulant laxatives is not harmful to the colon. For people with a history of chronic constipation, stimulant laxatives can be used 2 or 3 times weekly in conjunction with non-stimulant laxatives on a daily basis. Residents receiving opioid medications may require daily stimulant laxatives as well as other types of laxatives.

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\(^1\) Macrogol is the recommended International Nonproprietary Name for polyethylene glycol
Note that Nulax® is a stimulant laxative that contains senna leaf powder. It is not formulated in a manner that ensures even distribution of the active ingredient, resulting in inconsistent dosing.

**Lubricant laxatives**

Lubricant laxatives eg liquid paraffin (Agarol®, Parachoc®) soften the stool, making passage of the stool through the colon easier. These products should be avoided in residents with advanced dementia who have dysphagia, as aspiration of them can lead to lipoid pneumonia. Liquid paraffin may also reduce absorption of the fat-soluble vitamins A, D, E and K.

**Suppositories and enemas**

The Guidelines for a Palliative Approach in Residential Aged Care Enhanced Version recommend using suppositories to assist in reducing the incidence of faecal incontinence. If possible, avoid the use of suppositories and enemas for residents with advanced dementia, due to their invasive nature and the inability of the resident to understand why they are required. They are also more expensive due to the additional cost in staff time to give them.

If a suppository or enema is ordered, the following points should be considered:

- to soften a faecal mass, use a lubricant suppository such as glycerin. Insert it directly into the faeces and allow it to dissolve. Glycerin suppositories can be moistened with water prior to insertion;
- stimulant suppositories eg bisacodyl must come in contact with the mucous membrane of the rectum if they are to be effective. Therefore they should NOT be inserted into the faecal mass. A lubricant should be used to aid insertion;
- any suppository required for systemic absorption should be inserted with the blunt end first, to allow the anal sphincter to close more tightly.
- enemas should be administered at room temperature, and the enema contents introduced slowly using gravity rather than force.
- use only suppositories (eg lubricant or stimulant suppositories) to treat constipation in residents with stomas.

Table 2 contains more information relating to suppositories and enemas.

**Treatment of faecal impaction**

Prevention of constipation will stop faecal impaction occurring. If faecal loading / impaction is confirmed then immediate treatment is required. An iso-osmotic can be used, or an olive oil retention enema, followed the next day by a high stimulant or osmotic enema if required. Further details are available in the ‘Guidelines for nurses and care staff’ provided with this document.
The resident requires a digital rectal examination to ensure rectal emptying has occurred following treatment for faecal impaction. If treatment is not successful, then manual removal of faeces may be required.

**Manual removal of faeces**

This procedure is distressing and painful for the resident. The resident may require sedation with a benzodiazepine such as Midazolam. **NEVER undertake a manual removal of faeces before seeking medical advice, obtaining valid consent to undertake the procedure, considering the safety of the resident and whether there is a competent registered nurse available to undertake the procedure.** Do not proceed unless all these criteria are met: medical order obtained, competent nurse available, facility policy available that authorises the procedure, valid consent for the procedure obtained. Transfer the resident to the local hospital Emergency Department if there is doubt about whether or not to undertake a manual removal of faeces. Treatment can be undertaken with appropriate sedation and observation of the resident.

Further information relating to manual removal of faeces is available in the ‘Guidelines for nurses and care staff’ provided with this document.
### Table 1: Examples of oral laxatives

*The following list is not exhaustive, and is for example only. Refer to either Therapeutic Guidelines\textsuperscript{64, 71} or MIMS for dose information.*

<table>
<thead>
<tr>
<th>Class</th>
<th>Active constituent</th>
<th>Examples</th>
<th>Route &amp; time to onset</th>
<th>Adverse reactions and special precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iso-osmotic laxatives</strong></td>
<td>Macrogol 3350</td>
<td>Movicol*; Movicol-Half*</td>
<td>Oral. 1 hour</td>
<td>Abdominal discomfort; mild diarrhoea; allergic reactions; Observe for electrolyte imbalance.</td>
</tr>
<tr>
<td><strong>Combined laxatives:</strong></td>
<td>Docusate + senna tablets</td>
<td>Coloxy with senna</td>
<td>Oral. 6 to 12 hours</td>
<td>Abdominal discomfort; diarrhoea</td>
</tr>
<tr>
<td><strong>Stool-softening combined with stimulant laxatives</strong></td>
<td>Docusate + sennoside B</td>
<td>sennesoft</td>
<td>Oral. 6 to 12 hours</td>
<td>Abdominal discomfort; diarrhoea</td>
</tr>
<tr>
<td><strong>Stool-softening laxatives</strong></td>
<td>Docusate</td>
<td>Coloxy tablets</td>
<td>Oral. 1 to 3 days.</td>
<td>Taste may be unacceptable if docusate tablets are crushed</td>
</tr>
<tr>
<td><strong>Poloxalkol drops</strong></td>
<td></td>
<td>Coloxy drops*</td>
<td>Oral. 2 to 3 days.</td>
<td>Abdominal discomfort incl. colic, cramps, diarrhoea</td>
</tr>
<tr>
<td><strong>Stimulant laxatives</strong></td>
<td>Bisacodyl</td>
<td>Bisalax*; Durolax*</td>
<td>Oral. 6 to 12 hours</td>
<td>Electrolyte loss; diarrhoea, nausea</td>
</tr>
<tr>
<td><strong>Senna tablets</strong></td>
<td></td>
<td>Senokot; Laxettes with senna</td>
<td>Oral. 6 to 12 hours</td>
<td>Abdominal discomfort</td>
</tr>
<tr>
<td><strong>Lubricant laxatives</strong></td>
<td>Liquid paraffin</td>
<td>Agarol; Parachoc*</td>
<td>Oral. Several days</td>
<td>Dependence Contains paraffin oil-do not use if the resident is at risk of aspiration</td>
</tr>
<tr>
<td><strong>Bulk-forming laxatives</strong></td>
<td>Psyllium powder</td>
<td>Metamucil</td>
<td>Oral. Usually 24 hours onset, 2 to 3 days for full effect</td>
<td>Bloating, flatulence. Do not give if the resident is impacted with faeces or has a bowel obstruction, or if the resident has dysphagia. Must drink 8-10 glasses of fluid each day.</td>
</tr>
<tr>
<td><strong>Ispaghula</strong></td>
<td></td>
<td>Fybogel</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Combined laxatives:</strong></td>
<td>Ispaghula + senna granules</td>
<td>Agiolax*</td>
<td>Oral. 6 to 12 hours</td>
<td>Abdominal distension. Intestinal obstruction is possible if the products are taken in overdose or are not adequately washed down with fluid. Need to drink 8-10 glasses of fluid per day</td>
</tr>
<tr>
<td><strong>Bulk-forming combined with stimulant laxatives</strong></td>
<td>Frangula + sterculia granules</td>
<td>Granocol*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frangula + sterculia granules</strong></td>
<td></td>
<td>Normacol Plus*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Indicates product is either not on the PBS; or is a restricted purpose item or requires an authority to prescribe it.

Table 2: Examples of rectal laxatives

<table>
<thead>
<tr>
<th>Class</th>
<th>Active constituent</th>
<th>Examples</th>
<th>Route &amp; time to onset</th>
<th>Adverse reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osmotic laxatives</td>
<td>Sodium citrate + sorbitol + sodium laurel sulfoacetate</td>
<td>Microlax Microenema*</td>
<td>Rectal. 30 minutes</td>
<td>Rectal burning sensation</td>
</tr>
<tr>
<td>Combined laxatives:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stool-softening combined with stimulant laxatives</td>
<td>Bisacodyl + docusate suppositories</td>
<td>Coloxyl</td>
<td>Rectal. 2 to 15 minutes</td>
<td>GI upset incl cramps, GI electrolyte (esp K+) loss, atonic colon; rectal irritation</td>
</tr>
<tr>
<td>Stimulant laxatives</td>
<td>Bisacodyl microenemas</td>
<td>Bisalax Microenema*</td>
<td>Rectal. 5 to 60 minutes</td>
<td>Local irritation (suppos); abdominal discomfort; diarrhoea; dizziness</td>
</tr>
<tr>
<td></td>
<td>Bisacodyl suppositories</td>
<td>Dulcolax* Durolax*</td>
<td>Rectal. 15 to 60 minutes</td>
<td></td>
</tr>
<tr>
<td>Lubricant laxatives</td>
<td>Glycerine suppositories</td>
<td></td>
<td>Rectal. 15 to 30 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Olive Oil</td>
<td></td>
<td>Rectal</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates product is either not on the PBS; or is a restricted purpose item or requires an authority to prescribe it.

2.3: BOWEL OBSTRUCTION

Untreated faecal impaction can lead to bowel obstruction. Sufian & Matsumoto (in Morley 35) reported that faecal impaction was responsible for 7.6% of all cases of bowel obstruction. The incidence of large bowel obstruction secondary to impaction increases with age, the risk of death from bowel obstruction is up to 16% in older people 18.

Small bowel obstruction may be caused by post-surgical adhesions, strangulated hernia, malignancy, Crohn’s disease, and rarely, volvulus 72.

Signs and symptoms of bowel obstruction

If bowel obstruction is present then the resident may have the following signs and symptoms:

- fever;
- anorexia;
- vomiting;
- not passing any flatus (wind);
- no bowel sounds are heard on auscultation;
- abdominal tenderness;
- distension;
- a faecal mass may be felt on abdominal palpation.

Immediate referral to the general practitioner is required if a resident is suspected to have a bowel obstruction.

Treatment of bowel obstruction

Treatment will depend on the cause of the obstruction and the goals of care for the resident. High obstructions may need intravenous fluids and antibiotics, and/or surgery 18.
2.4: IRRITABLE BOWEL SYNDROME (IBS)

Definition of IBS

Irritable bowel syndrome (IBS) is:

a ‘chronic, episodic disorder characterised by abdominal pain and changes in defecation pattern (for example, looser, more frequent stools or harder stools that are more difficult to pass) in the absence of organic disease’ 73(p202).

Prevalence and causes

IBS is more common in women from Western cultures, although this pattern is not seen among Eastern women 74. IBS occurs in almost 10% of older people 75, however many less than this number are actually diagnosed with IBS. IBS can be associated with decreased food intake and weight loss, as well as reduced quality of life and increased use of medications and health services.

Gut motility alterations; visceral hypersensitivity (exaggerated sensitivity to painful visceral sensations); and autonomic nervous system dysfunction have been implicated as possible causes for IBS, as have psychological distress and co-existing conditions such as headache, fatigue, back pain, insomnia and chronic fibromyalgia 73. There appears to be convincing evidence that IBS arises after bacterial gastroenteritis in up to one quarter of cases 74 due to changes to the bowel wall 73. Acute life stress immediately before or after the gut infection is the strongest predictor of IBS development 73.

In older people, constipation related to IBS may be more prevalent than in younger people 12; and an older person presenting with IBS is more likely to have had IBS as a younger person, than to have recently acquired the condition.

Signs and symptoms of irritable bowel syndrome

IBS symptoms follow four bowel patterns:

- diarrhoea-predominant;
- constipation predominant;
- mixed diarrhoea and constipation;
- alternating diarrhoea and constipation.

Classification using bowel symptoms is not very useful, as people with IBS commonly change between subtypes of the disorder. A resident with abdominal pain and disturbed defecation patterns should be assessed for possible IBS 74.

Symptoms that require immediate referral to the resident’s general practitioner for possible further investigation include:

- anaemia;
- persistent fever;
• chronic diarrhoea;
• nocturnal diarrhoea;
• persistent mouth ulcers;
• rectal bleeding;
• significant weight loss;
• streatorrhoea;
• vomiting or severe pain;
• family history of colon cancer.

A diagnosis of constipation or impaction with overflow needs to be ruled out in any resident with disturbed defecation patterns.

**Treatment of IBS**

**Dietary modification**

If a resident has had IBS for a long period of time, he or she may know of food substances that exacerbate the condition. Ask the resident or family members when documenting the resident’s medical history.

The following food components are known to cause IBS symptoms in susceptible people. Limit the resident’s intake of these foods if symptoms are aggravated by consuming them:

- fructose: found in large quantities in apples, pears, watermelons, mangoes, lychees, fruit juice and dried fruits; persimmons and guavas;
- fructans: present in wheat, onions, leeks, shallots, artichokes, chicory, radicchio and endive;
- lactose: in milk, yoghurt, ice-cream, soft cheeses;
- sorbitol: present in apples, pears, stone fruits, as an artificial sweetener in gums and low-calorie confectionery;
- raffinose: present in legumes such as baked beans, lentils, chickpeas, green beans, peas, cabbage, Brussels sprouts.

**Diarrhoea-predominant irritable bowel syndrome**

Therapeutic Guidelines Gastrointestinal recommend loperamide or cholestyramine tablets for controlling exacerbations of diarrhoea due to IBS. Anticholinergic or antispasmodic medication may be useful, as might be increasing the resident’s intake of dietary fibre or bulk-forming agents.

**Constipation-predominant irritable bowel syndrome**

Treatment is similar to treatment of constipation in general, with the exception that stimulant laxatives should not be used.

**Pain due to irritable bowel syndrome**
Analgesics are generally ineffective; antispasmodics and tricyclic antidepressants may assist \(^{64}\) \(^{p186}\).

2.5: DIARRHOEA

All cases of diarrhoea should be treated as infectious until proven otherwise. Refer to your facility’s policies and procedures for information about infection control procedures.

Definition

Diarrhoea can be defined as:

‘having more than three loose or watery bowel movements per day compared to individual baseline’ \(^{76}\).

Diarrhoeal diseases cause significant morbidity and mortality among older persons, due to the weakened immune system of older people; low stomach acid secretion rates which allow a greater number of potentially dangerous bacteria to pass through to the bowel; slower transit rates; poor nutritional status; and presence of other chronic medical conditions \(^{76}\). Diarrhoea in residents in aged care facilities presents a serious threat of death, and an increased incidence of incontinence, dehydration, delirium, increased fall and fracture risk, and increased rates of hospitalisation \(^{76}\).

Acute diarrhoea

Acute diarrhoea usually lasts less than 2 weeks, and often is infectious. Not all causes of acute diarrhoea are known, as diagnostic tests are not always performed, especially if the diarrhoea spontaneously resolves \(^{76}\). Known causes of acute diarrhoea are usually bacterial, viral or protozoal infections \(^ {64}\). Other less common causes include adverse drug reactions; overuse of laxatives or antacids; carcinoma tumours; ischaemic colitis; diabetes or thyrotoxicosis \(^{76}\).

Gastroenteritis


Gastroenteritis may be either viral or bacterial. Viral gastroenteritis is an acute infectious condition that is transmitted from person to person Viral gastroenteritis usually resolves in 24-48 hours. Common viruses that cause gastroenteritis include the caliciviruses: Norwalk; Sapporo and Norwalk-like viruses. Rota-virus is more common in infants \(^{76}\).
Shigella, Salmonella, Campylobacter jejuni, and E. Coli infections cause bacterial gastroenteritis. Bacterial gastroenteritis is usually more severe than viral gastroenteritis, and may be caused by contaminated food. Bacterial gastroenteritis usually lasts longer than 2 days.

In the USA and Canada, the most common bacterial cause of gastroenteritis is from Clostridium difficile infections. This infection causes a significant mortality risk, and is most commonly found in hospitals, aged care facilities, and day care centres. At the present time, epidemics of Clostridium difficile have not occurred in Australia, but outbreaks have been reported from both the USA and Canada, and recently from hospitals in The Netherlands.

**Signs and symptoms of gastroenteritis**

Common symptoms include:

- nausea;
- vomiting (less common in older people);
- diarrhoea;
- abdominal cramps;
- fever;
- chills;
- headache.

**Non-infectious acute diarrhoea**

Non-infectious acute diarrhoea may be due to substances including medications, or faecal impaction. Therapeutic Guidelines Gastrointestinal list the following diarrhoea-causing substances:

- acarbose (used to treat non-insulin dependent diabetes);
- alcohol;
- antibiotics;
- colchicine;
- cytotoxic agents;
- food and drug additives, including sorbitol, mannitol, fructose, lactose (in lactose intolerance);
- laxatives;
- magnesium-containing antacids;
- metformin;
- non-steroidal anti-inflammatory drugs;
- orlistat;
- protease inhibitors, especially nelfinavir.

**Chronic diarrhoea**
Chronic diarrhoea lasts for longer than 4 weeks. Causes include coeliac disease, and inflammatory bowel diseases such as ulcerative colitis and Crohn’s disease.

Liquid stools associated with faecal impaction

Overflow faecal movements that resemble small amounts of faecal-stained fluid can occur in a constipated resident. These faecal movements may be wrongly reported and recorded as diarrhoea. Accurate documentation of all bowel movements, (amount and stool form) and careful assessment prior to commencing treatment for diarrhoea are required, as use of anti-diarrhoeal medication will make the constipation/faecal impaction worse.

Treatment of diarrhoea

Acute diarrhoea

The cause of the diarrhoea should be treated if known, rather than the diarrhoea itself. Antibiotics are rarely required, unless there is an outbreak of infectious gastroenteritis requiring preventive measures. To prevent dehydration, 2 to 3 litres per 24 hours of oral replacement solutions containing balanced quantities of sodium, potassium, glucose and water are helpful. Antimotility medication may provide symptomatic relief, but should not be used if there is severe or bloody diarrhoea; possibility of invasive organisms; or in residents who have severe inflammatory bowel disease.

Chronic diarrhoea

The treatment of chronic diarrhoea will depend on the cause of the diarrhoea, and the goals of care of the resident.
2.6: DIVERTICULAR DISEASE

Diverticula are:

‘herniations of the colonic mucosa through the muscle layer of the large bowel’ ⁶⁴.

Most occur in the sigmoid and descending colon; half of all older people aged over 80 years are affected by diverticular disease.

Diverticulosis

Diverticulosis is uncomplicated diverticular disease, and is usually asymptomatic. A small number of people affected by diverticulosis develop colicky lower abdominal pain or an irregular bowel habit, with alternating diarrhoea and constipation.

Diverticulitis

Diverticulitis is most likely caused by impacted faecal matter becoming trapped among diverticula, which become inflamed and infected. Mild diverticulitis (75% of episodes) will result in mild abdominal pain and tenderness in the left lower quadrant of the abdomen.

Residents with severe diverticulitis will have symptoms associated with having a high fever, and marked rebound tenderness. Severe diverticulitis may result in perforation of the bowel, or an abscess forming.

Diverticular bleeding

While not common (<15% of people with diverticular disease), a resident with diverticular disease is at risk of having a major gastrointestinal bleed. Residents receiving antiplatelet or non-steroidal anti-inflammatory medication are at increased risk. Bleeding may commence abruptly.

Treatment of diverticular disease

Diverticulosis

A high-fibre diet, with increased fluid intake is recommended to keep stools soft and prevent an episode of acute diverticulitis ⁶⁴.
**Diverticulitis**

Treatment for mild cases of diverticulitis with no systemic symptoms includes a low-residue diet while symptoms persist, and antibiotics. If the resident does not improve within 48 to 72 hours, then severe diverticulitis should be suspected, and the resident may require review in hospital.

The goals of care for the resident need to be taken into consideration when planning treatment. If hospitalisation is contrary to the goals of care, then palliation of symptoms, with adequate pain relief, is required.

If hospitalisation is considered appropriate for the resident, then he/she may be treated with intravenous fluids, nil by mouth, and intravenous antibiotics. Surgery may also be required. Again, if hospitalisation with active treatment is contrary to the goals of care, then excellent palliation of symptoms is required.

**Diverticular bleeding**

Treatment will depend on the goals of care of the resident. Blood transfusion, intravenous fluids and surgery may all be necessary.
2.7: FAECAL INCONTINENCE

Definition

Faecal incontinence can be defined as:

‘the involuntary passage of stool, soiling, or excessive escape of flatus through the anus’ 79, 80.

Prevalence

Faecal incontinence is a common condition, affecting between 3-21% of community-dwelling older people (over 65 years of age), and almost 50% of older people living in institutions 80. Eighty percent of people with dementia who are hospitalised experience faecal incontinence; and 50% to 70% of patients who have urinary incontinence also experience faecal incontinence 80. Faecal incontinence is more prevalent in older women than older men 6; this difference in prevalence narrows with advancing age 80, and in the aged care setting, males are more likely to be affected than females 81, 82.

Risk factors and causes

There are many reasons for faecal incontinence. These include 83:

- faecal impaction (usually associated with reduced rectal sensation);
- loss of normal continence mechanism: local neuronal damage (eg pudendal nerve); impaired neurological control; anorectal trauma / sphincter disruption: birth trauma, anal dilatation, anal surgery;
- problems overwhelming normal continence mechanism: diarrhoea / colitis; poor access to toileting facilities; laxatives: inappropriate use or abuse; radiation;
- psychological and behavioural problems: severe depression; dementia; delirium;
- physical functional impairment: hemiparesis, other spinal cord damage eg paraplegia; arthritis; gait instability;
- neoplasms (rare): brain tumours.

Male residents, and residents with either constipation or diarrhoea will be at increased risk of faecal incontinence 84, as will residents with dementia and restricted mobility 81, 82.
Residents with dementia may not be able to recognise the toilet; may ignore the urge to defecate leading to faecal impaction with overflow; or neurogenic sphincter abnormalities may develop \(^{81}\).

**Consequences of faecal incontinence**

The presence of faecal incontinence is associated with increased mortality in residential aged care facilities, and is a marker of the poor overall health of a resident \(^{85}\). Faecal incontinence increases the risk of decubitus ulcer formation; urinary tract infection can result from contamination of the urethral area; and urinary obstruction can occur if the cause of the faecal incontinence is a faecal mass \(^{18}\).

**Treatment of faecal incontinence**

Faecal incontinence can be minimised by:

- preventing constipation;
- bowel habit training, when a regular schedule for defecation, usually after breakfast, is used \(^{84}\);
- making changes to the environment, so that the resident can identify where the toilet is;
- making sure there are no obstacles in the way when a resident needs to find the toilet;
- making sure the resident wears clothes that are easy to remove;
- increasing dietary fibre;
- making sure the bowel is completely empty after bowel movements. If not, using a suppository may assist;
- antidiarrhoeal agents such as loperamide may be helpful when the stool is loose \(^{84}\).
SECTION THREE: ASSESSMENT OF BOWEL FUNCTION

Every resident, irrespective of whether they have dementia or not, should have a comprehensive bowel history taken on admission, to provide baseline information. Reviews should be undertaken if a significant change in bowel management occurs, or annually, or as part of ACFI assessments.

Use of a bowel assessment form is recommended. The Ballarat Bowel Assessment and Management Plan (Ballarat Health Services, Victoria) is an example of a comprehensive assessment form to use. This form is recommended within the suite of tools available to provide evidence for the ACFI process for funding aged care places.

A copy of the Ballarat Bowel Assessment and Management Plan form can be retrieved from: http://www.health.gov.au (Search for NATFRAME).

Document the results of the history and physical assessment on the Care Profile Form and Ongoing Assessment Form required for the resident as part of the ACFI evidence.

History

The person responsible / primary caregivers may need to answer these questions. These questions should be asked sensitively and in privacy. A general question such as “What do you believe is a normal bowel routine for you / for the resident?” may elicit the cultural beliefs and expectations of the resident /family members 86. Other questions should focus on 31:

- past history of bowel or abdominal surgery, including whether the resident has a stoma, and has had procedures such as colonoscopies;
- past history of laxative use (including over-the-counter preparations);
- regular medications;
- any changes in the usual bowel action that have been noted;
- duration of any constipation (whether recent or chronic);
- the frequency, volume, consistency and colour of the stool;
- whether blood, mucous, or an offensive odour are present;
- whether pain or discomfort occur;
- the usual amount of fluid taken each day (exclude coffee and tea, due to their diuretic effect);
- the amount of dietary fibre the resident usually eats;
- the resident’s activity and exercise patterns;
- whether the resident is depressed or not;
- whether the resident has now / or has ever had an eating disorder;
- whether the resident has a history of endocrine disorders such as diabetes mellitus or hypothyroidism, or collagen vascular disease for example systemic sclerosis 31;
- whether the resident experiences a desire to defecate (if resident able to answer for themselves), or whether the caregiver notices signs that indicate the resident is experiencing an urge to defecate, and the time of day that these signs are usually noted. Document the signs if apparent.

**Physical examination** 86

Residents should be assessed on admission, if symptoms suggest a change in condition, and as part of ACFI reviews, to determine:

- whether they can mobilise and transfer independently to the toilet;
- the condition of their mouth and teeth, and whether they have bad breath that may indicate constipation or other gastrointestinal tract problem;
- the presence of abdominal distension, rigidity or tenderness. Observation and palpation are required to complete this assessment;
- the presence of anal fissures, external haemorrhoids, rectal prolapse, scars and skin excoriation. Use a small torch to detect anal fissures;
- whether they are constipated. A digital rectal examination may be required;
- the condition of a stoma if present.

Refer to the *Guidelines for nurses and care staff* provided with this document for further information

**Risk assessment**

Assume that every resident with advanced dementia is at risk for constipation and faecal loading /impaction, due to their inability to reliably report their own symptoms.
Recording daily bowel movements.

All residents should have an accurate record kept of their bowel movements every time their bowels are open. Use a bowel record chart that enables all staff to document bowel activity and interventions. Reviewing the information is easiest when it is all recorded in one place. An example of a bowel record form is available in the ‘Guidelines for nurses and care staff’ provided with this document.

Care staff should place a small amount of toilet paper into the toilet so that it lies flat on the surface of the water before seating the resident so they can examine the stool colour, type, and size, before recording the observation on the resident’s bowel chart. This will aid accuracy of the bowel chart. Placing a tick in a box on a bowel chart to indicate that the bowels are open does not provide sufficient evidence for the registered nurse or other clinicians to determine whether the resident’s bowels are working normally.

Stool type (consistency)

Using a guide such as the Bristol Stool Form Scale (Figure 1) will aid reliability of reporting. The Bristol Stool Form Scale is available in poster size to display in appropriate areas of your facility from:

Norgine Pty Ltd
3/14 Rodborough Rd
Frenchs Forest NSW 2086
Ph: 9972 7500
Fax: 9972 7522

There is also a validated chart to use to assist in accurately recording the bowel movements of residents who are receiving tube feeds. This is the Kings Stool Chart 87. Copies can be retrieved from the King’s College London website: http://www.kcl.ac.uk/stoolchart

Stool amount (size)

One method of deciding how much bowel motion is passed is to compare the size of the stool against the size of the clenched fist of the resident who passed the stool:

- Small stool = the stool is smaller than the resident’s clenched fist;
- Medium stool = the stool is about the same size as the resident’s clenched fist;
- Large stool = the stool is larger than the size of the resident’s clenched fist.

If all staff consistently use the same system to record the type and size of all stools passed by residents, then a more useful (reliable) bowel record chart will result. This will assist all clinicians reviewing bowel care.
The Bristol stool form scale

Type 1: Separate hard lumps, pellets like nuts (hard to pass)

Type 2: Sausage-shaped cylinder but lumpy, hard

Type 3: Like a sausage or dry cylinder but with cracks on its surface

Type 4: Like a sausage, cylinder or snake, smooth and soft

Type 5: Soft blobs with clear-cut edges (passed easily)

Type 6: Fluffy pieces with ragged edges, unformed, a mushy stool

Type 7: Watery, no solid pieces ENTIRELY LIQUID


This tool was developed based on the colon transit time of waste material through the colon.

Types 1 and 2 indicate constipation;
Types 3 and 4 are easiest to pass;
Types 5 and 6 are symptomatic of diarrhoea;
Type 7 is found in food poisoning, cholera and similar acute conditions.
SECTION FOUR: QUALITY IMPROVEMENT

Facility-wide strategies to improve bowel management outcomes for residents with advanced dementia

In order to provide better bowel management outcomes for residents, a number of strategies may be implemented by the facility. These include:

1. Form a bowel management working party to review ways of preventing bowel problems within the facility.
2. Build regular monitoring of bowel management strategies and evaluation into the regular quality improvement cycle in the facility.
3. Ensure staff have regular updates on bowel management, programmed into their regular education.
4. New staff need a comprehensive introduction to the bowel management philosophy and practice of the facility during their orientation. Give out policies and paperwork at this time, and ensure all staff are aware of their role in the prevention of bowel problems.

Standards of care:

1. Record every bowel movement on the resident’s bowel chart, including the type and size of the stool. Use the Bristol Stool Form Scale to aid description of the stool;
2. All staff have a role in preventing bowel problems, including ensuring residents receive sufficient dietary fibre, exercise if appropriate to the medical condition of the resident, and fluids to prevent dehydration;
3. Family members can be encouraged to assist with giving fluids, provided the registered nurse in charge is satisfied that they are able to safely do so;
4. Specify when a resident needs more comprehensive assessment of a bowel problem. For example, if the bowel chart has not been completed in 2 days, the presumption should be made that the resident is constipated, until proven otherwise. Follow the overview flowchart in the ‘Guidelines for nurses and care staff’ provided with this document.

Education and Training:

- all registered nurses should be competent to undertake a digital rectal examination;
- all staff responsible for completing a bowel management record should be trained in the how to complete the form;
- all staff should understand how to use the Bristol Stool Form Scale;
- all staff responsible for developing or implementing interventions used for bowel management should understand the interventions, and be competent in using them.
Quality improvement monitoring of bowel management outcomes:

- all (100%) residents should have a Ballarat Bowel Assessment and Management Form completed as part of their ACFI assessment.

Review and record at regular intervals:

- the % of residents who require suppositories or enemas during a specific period of time. Use of rectal laxatives like these indicate a failure of the bowel management routine;
- the % of residents who have required an assessment for constipation to be undertaken because the bowel record was incomplete;
- the % of residents requiring abdominal X-Ray to establish faecal loading, and if necessary, treatment for faecal impaction;
- the % of residents who are prescribed opioid medication who do not have a bowel management program also ordered;
- the % of residents with advanced dementia who require treatment for constipation due to dehydration.

Quality Improvement (QI) audits

- consider commencing auditing with a select number (eg 5-10) resident files per month;
- summarise and report to the staff the results. Determine whether additional education or training is required;
- if progress is satisfactory, change monitoring to quarterly and monitor a select number eg 15-20 resident files per quarter;
- if progress is not satisfactory, continue monthly audits until the results are acceptable;
- continuously monitor and summarise the results, provide feedback and further education to all staff as necessary.
SECTION FIVE: CAPACITY and CONSENT ISSUES

Refer to your facilities’ policies and procedures relating to consent and capacity.

Capacity to give informed consent.

Before medical or dental treatment is provided to a resident, there is professional and legal responsibility to obtain consent for the treatment. Verbal consent is required: in most instances involving advanced dementia, a proxy will be required to make substitute consent (see below). Ensure that clear documentation of the consent process is made in the resident’s records.

Key points relating to capacity to give informed consent92, 93:

- it is presumed that a person has the capacity to make their own healthcare decisions unless proven otherwise, (similar to the presumption of innocence until proven guilty);
- an abnormal Mini-Mental State Examination94 (MMSE) score alone does not equal incapacity;
- evidence of incapacity should not be based on ignorance. The individual whose capacity is being assessed must be given relevant information;
- careful documentation is required, especially for borderline cases;
- competency to consent to medical treatment by an individual is a legal concept and legal decision, made finally by a court of law. To assess the capacity of individuals to consent to their own medical treatment is a time-consuming but necessary process.

A person who has the capacity to give consent to medical treatment should be able to:

- express in their own words what the problem is;
- express in their own words what the treatment choices are, including “do nothing”;
- express in their own words what the foreseeable consequences of each treatment might be;
- all of the above must not be based on delusional ideas.

Incapacity is present if a person:

- does not know what the issue is; OR
- does not know the possible choices; OR
- does not appreciate the reasonably foreseeable consequences; OR
- the decision is based on a delusional construct; AND
- cognitive or mental impairment is present.
Substitute consent

In NSW, the Guardianship Act 1987 establishes who can give valid substitute consent if an individual is incapable of doing so. A substitute decision-maker can be the ‘person responsible’ or the Guardianship Tribunal.

The Guardianship Act 1987 identifies four levels of treatment: urgent; major; minor; and special treatment. Urgent treatment (aimed at saving a person’s life) may proceed without valid substitute consent; all other treatment requires valid substitute consent. (See the Guardianship Tribunal website http://www.gt.nsw.gov.au for full details).

Key points relating to valid substitute consent:

- a ‘person responsible’ (in order of hierarchy) may be a guardian or enduring guardian who has the function of consenting to medical, dental or health care treatments; or the most recent spouse or defacto spouse with a close continuing relationship with the person; or an unpaid carer who is providing or was providing care to the person prior to admission to the residential aged care facility; or a relative or close friend who has close personal contact with the person;
- the ‘person responsible’, including an enduring guardian, cannot override a person’s objections to treatment if they are objecting;
- the ‘person responsible’ is required to act in the best interests of the person, and needs to take the person’s previously expressed wishes into account but MAY act contrary to those previously expressed views if the action is in the best interest of the person;
- for minor treatment, if the person is NOT objecting, but the person responsible cannot be located, the doctor or dentist may treat without consent 65, and clearly document in the resident’s notes that the treatment was necessary to promote the resident’s health and well-being, and that the resident did not object. Treatment may not proceed if the person is objecting;
- a doctor may make an application to the Guardianship Tribunal to consider consent to a treatment if the guardian or ‘person responsible’ is objecting to the proposed treatment.

When is a person objecting to treatment?

Treatment may not be instituted if the person objects.

Key points:

- objection is considered to be continuous and strenuous refusal;
- the behaviour of the individual will need to be interpreted;
- if verbally refusing, while physically doing what is required eg accepting and swallowing oral medication, but saying “no”, then that is not considered to be continuous and strenuous refusal;
• if both verbally refusing to have the treatment (eg, saying “no, no, no”) AND physically resisting the treatment (eg clenching mouth so medication cannot be given), then that is evidence of continuous and strenuous refusal. TREATMENT MAY NOT PROCEED, EVEN IF THE PERSON RESPONSIBLE HAS GIVEN CONSENT. The Guardianship Tribunal will need to be contacted to consent to the treatment despite the objections.

Consent for rectal procedures

When following this Bowel Management Framework for severe constipation, a number of invasive procedures may be required for one episode of care ie one episode of constipation. For example, digital rectal examination followed by enema(s) or suppositories may be required. When speaking to the person responsible to obtain consent for the invasive procedures, discuss all the possible procedures that might be required to treat the constipation. The resident or person responsible needs to understand that more than one digital rectal examination may be required before the constipation is treated, and more than one treatment such as a suppository or enema may need to be given. Obtain the consent for all procedures for the episode of care, then document clearly that the person responsible understood and consented to the multiple procedures.
SECTION SIX: FAMILY CONFERENCES

Family conferences and developing plans of care

Planning care for a resident by holding a family conference has two-fold benefits. Firstly, by discussing the goals of care for the resident the outcomes for the resident may be improved. Secondly, relationships between all the caregivers may improve by having everyone meeting together. The general practitioner (GP) can be paid under Medicare Item Numbers 734, 736 or 738 if he or she organises and coordinates the conference, or items 775, 778 or 779 if he or she participates in a conference (not more than 5 in twelve months).

When to hold a family conference

- newly admitted resident to determine the goals and plan of care;
- as part of the annual ACFI review;
- whenever an unforeseen significant change in the resident’s medical condition has occurred.

Tips for increasing the participation of the general practitioner in family conferences

Organising a family conference is time consuming, and it may be difficult for the general practitioner to organise, or attend. To increase the chance that the GP will participate, the following tips may be useful:

- Reduce the administrative burden on the GP. Contact the GP’s surgery and try to use the Practice Manager or Practice Nurse to assist with the planning;
- Try to fit the family conference in at a time when the GP is already visiting the facility;
- Always give the GP the option of participating when you are organising a family conference. If he or she wants to participate, try to work out any barriers to involvement so he or she can contribute;
- Offer the GP different levels of involvement eg the GP may be willing to be involved in a 10-15 minute teleconference instead of attending in person;
- When contacting the GP’s office, remind the receptionist that you want to talk about one of their patients eg “I want to talk to Dr X about Mrs X”. Be specific, this may assist in getting past the ‘gatekeeper’;
- Think about the care of the resident being the GP’s responsibility, so the Practice Nurse may be useful. If you tell the Practice Nurse about concerns you have about a particular resident, and the need for a family conference, the Practice Nurse may be willing to raise the issues with the GP on your behalf;
- Define the GP’s role in the family conference, be very specific about what you want to achieve from the family conference. GP’s prefer family conferences when they occur at specific difficult points in the disease trajectory of a resident;
- Make sure all the lines of communication are clear to both GP and facility staff.
Steps in holding a family conference

To ensure the GP is remunerated for his or her coordination of and participation in the family conference, the following steps are required to be performed 97:

1. Identify the resident’s need for a family conference;
2. Contact the GP’s Practice Nurse or Practice Manager to assist with coordinating the family conference, and be the single point of contact for all attendees;
3. The Practice Nurse or Manager will consult with facility staff and determine which health professionals will be involved. NB, there must be 2 other healthcare providers present at the family conference, as well as the GP. These providers can be a nurse and a diversional therapist from the aged care facility, but could be another health service provider such as a physiotherapist, or speech pathologist, palliative care specialist or geriatrician. The other health service providers may charge a fee for their attendance;
4. Arrange a time, preferably at least 4 weeks in advance for an annual review, or as soon as possible after an unforeseen significant change in the resident’s medical condition;
5. Develop an agenda and an introduction letter, the coordinator will then send these to participants;
6. The resident’s consent is required, or if unable to give his or her own consent, the person responsible’s consent. Verbal consent is all that is necessary. Ensure that the resident/person responsible understands there will be a Medicare charge generated for the GP’s involvement, and other health service providers may also charge for their time;
7. Conduct the family conference. All members of the family conference team must participate for the whole of the conference. The conference may be face to face, or via telephone, video link, or a combination. Issues to discuss include:
   • the resident’s medical history;
   • review of the previous goals and plan of care;
   • identify current multidisciplinary care needs;
   • identify the outcomes to be achieved by members of the multidisciplinary care team;
   • identify tasks that need to be undertaken in order to achieve outcomes and allocate tasks to team members;
   • identify whether previously identified outcomes have been achieved.
8. A record of the family conference must be kept in the resident’s records, and a copy offered to the resident/person responsible, and other health service providers (with the consent of the resident/person responsible).

What to discuss during a family conference for a resident with advanced dementia

A number of decisions relating to the future care needs of a resident can be made in advance of their occurring, and can be included in a family conference discussion. One study 69 of death from dementia has revealed that:
• 85% of people with dementia die before the very end stage of dementia is reached;
• death, regardless of when it occurs, is most commonly associated with cachexia/dehydration (35.2%), cardio-vascular disorders (20.9%), and acute pulmonary diseases such as pneumonia (20.1%);
• over half of residents who reach the very end stage of dementia will die of cachexia/dehydration;
• approximately 9% of people with dementia die of an unknown, acute cause.

Therefore, in discussing the goals and plan of care for a resident with advanced dementia, the following issues could be included on the agenda:

• the typical trajectory of dementia;
• the symptoms the resident is currently experiencing that are causing distress, and how they will be managed;
• the likelihood of symptoms that may occur in the future, and how each will be addressed;
• the benefits and burdens of any treatments should be clearly articulated so decisions made about current or future care are based on objective information:
  • urinary incontinence; repeated urinary tract infections;
  • gait disturbances that leave the individual at high risk of falls; injuries resulting from falls;
  • pneumonia;
  • swallowing problems: pouching of food, dysphagia;
  • feeding issues and aversive feeding behaviours;
  • weight loss due to cachexia;
  • dehydration;
  • risk of decubitus ulcers;
  • aspiration pneumonia;
  • anxiety, agitation, aggression, depression, psychotic symptoms;
  • loss of ability to communicate verbally, and how symptoms such as pain are recognised and treated;
• the family member’s role in care;
• the site of care: a palliative approach to care given in the facility; times when transfer to hospital may be necessary; curative treatments offered in hospitals;
• cardiopulmonary resuscitation (CPR);
• medically provided nutrition and hydration (PEG feeds, subcutaneous hydration);
• blood transfusions;
• antibiotic therapy: in the facility/ in hospital (via intravenous infusion), and whether or not to give antibiotics or/palliate symptoms with analgesics, antipyretics, sedatives.

The person responsible needs to make decisions based on either the known or probable wishes of the resident; or what is in the ‘best interest’ of the resident: the relative benefits and burdens of a particular treatment choice in terms of the ability to relieve any suffering and maintain comfort and dignity and the best possible quality of
Nurses can assist persons responsible by reassuring and encouraging them to think of times when there were conversations about what the resident might have wanted, so that the known or probable wishes of the resident become clearer.

Conflicts are most likely to occur around two main issues—aspiration pneumonia and neurogenic dysphagia. Many clinicians and families find it harder to discontinue a therapy than to withhold it in the first place, so it is particularly important that the person responsible is aware of the burdens and benefits of medical interventions such as PEG feeds. In some instances, it may be easier to institute a trial intervention for a specific time frame eg a trial of oral antibiotics for one week for repeated urinary tract infections, which can be discontinued if unsuccessful. Research in NSW has shown some evidence that residents have an increased survival rate if their plan of care opts for them remaining in an aged care facility rather than transfer to hospital for care, compared to those without a plan of care.

Facility staff not involved in the development of the plan of care during the family conference need to be informed of the outcomes, and be given the opportunity to discuss any decisions they find ethically challenging, so that consensus about the goals of care are reached, and potential for conflict avoided.

**General practitioner contribution to a care plan**

A GP may contribute to the care plan of a resident, and be paid under Medicare item no. 731. The recommended interval between reviews is 6 months, but may be 3 monthly. To ensure the GP is remunerated, the following steps need to be undertaken:

1. Invite the GP to contribute to the ‘nursing and personal care plan’ of the resident;
2. The resident or person responsible need to be informed that the GP will be consulted, and consent recorded;
3. Provide the GP with the resident’s notes, to review alongside the GP’s own patient notes;
4. The GP will contribute to the care plan by discussing it with facility staff and giving any additions, changes or other recommended management;
5. The fact that the GP contributed to the care plan is documented on the care plan in the facility;
6. The GP is also required to document in the resident’s medical records that he or she has contributed to the care plan. The documentation may just be a date, signature, and comment that a contribution to the care plan has been made, but it is also recommended that the GP includes a brief summary of recommendations;
7. Facility staff may write detailed notes into the care plan after verbal discussion with the GP;
8. **Once an Item 731 has been claimed by the GP, and it is documented that the resident requires allied health or dental services the resident may be eligible for access to up to 5 allied health and 3 dental care services per year.**
## APPENDIX 1: Examples of medications that can potentially cause constipation

<table>
<thead>
<tr>
<th>Therapeutic class:</th>
<th>Used for:</th>
<th>Active Ingredient:</th>
<th>Brand Names* containing the constipating substance:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narcotic analgesics</td>
<td>Pain</td>
<td>morphine sulphate</td>
<td>Anamorph; Kapanol; Morphine Sulphate Injection; MS Mono; MS Contin; Sevredol</td>
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<tr>
<td></td>
<td></td>
<td>morphine hydrochloride</td>
<td>Ordine</td>
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<tr>
<td></td>
<td></td>
<td>morphine tartrate</td>
<td>Morphine Tartrate Injection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>codeine phosphate (+/- paracetamol; aspirin)</td>
<td>Codeine Phosphate; Codral Forte; Dymadon Forte; Panadeine Forte; Codalgin Forte; Codapane Forte; Dolaforte.</td>
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<tr>
<td></td>
<td></td>
<td>hydromorphone</td>
<td>Dilaudid</td>
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<tr>
<td></td>
<td></td>
<td>dextropropoxyphene</td>
<td>Doloxene; Capadex; Di-Gesic; Paradex</td>
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<tr>
<td></td>
<td></td>
<td>fentanyl</td>
<td>Durogesic; Fentanyl; Actiq; Sublimaze.</td>
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<tr>
<td></td>
<td></td>
<td>oxycodone</td>
<td>Endone; Oxycontin; Oxnorm; Proladone Suppositories</td>
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<tr>
<td></td>
<td></td>
<td>buprenorphine</td>
<td>Norspan transdermal patch; Temgesic</td>
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<td></td>
<td></td>
<td>physeptone</td>
<td>Methadone</td>
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<tr>
<td></td>
<td></td>
<td>tramadol hydrochloride</td>
<td>Tramal; Tramahexal SR; Tramedo; Zydol; Zydol SR.</td>
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<tr>
<td></td>
<td></td>
<td>Contains a number of substances</td>
<td>Mersyndol Forte</td>
</tr>
<tr>
<td>Non-steroidal anti-inflammatory</td>
<td>Arthritis; acute and chronic pain due to inflammation</td>
<td>naproxen</td>
<td>Naprosyn; Naprogesic; Aleve; Anaprox; Proxen SR.</td>
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<tr>
<td></td>
<td></td>
<td>ibuprofen</td>
<td>Advil; Brufen; Bugesic; Butalgin; Panafen Plus; Rafen.</td>
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<td></td>
<td></td>
<td>indomethacin</td>
<td>Indocid; Arthrexin.</td>
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<td></td>
<td>ketoprofen</td>
<td>Orudis; Oruval SR.</td>
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<td></td>
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<td>diclofenac sodium</td>
<td>Diclofenac-BC; Volaten.</td>
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<td></td>
<td>ketolorac trometamol</td>
<td>Toradol.</td>
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<td>celecoxib</td>
<td>Celebrex</td>
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<td>parecoxib sodium</td>
<td>Dynastat</td>
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<td></td>
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<td>piroxicam</td>
<td>Feldene; Pirohexal-D.</td>
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<td>tiaprofenic acid</td>
<td>Surgam</td>
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<td>Iron supplements</td>
<td>Iron deficiency</td>
<td>ferrous sulphate</td>
<td>Fefol; Ferrograd C; Ferro-Gradumet; FGF</td>
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<td>ferrous gluconate</td>
<td>Fergon</td>
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<td>Diuretics</td>
<td>Oedema; hypertension</td>
<td>frusemide</td>
<td>Lasix; Frusehexal; Uremide; Urex.</td>
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<td>amiloride hydrochloride</td>
<td>Amizide; Kahuril; Moduretic</td>
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<td>indapamide hemihydrate</td>
<td>Dapa-Tabs; Indahexal; Insig; Napamide</td>
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<tr>
<td></td>
<td></td>
<td>chlorothalidone</td>
<td>Hygroton.</td>
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<td>Therapeutic class:</td>
<td>Used for:</td>
<td>Active Ingredient:</td>
<td>Brand Names* containing the constipating substance:</td>
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<td><strong>Antidepressants</strong></td>
<td>Depression; co-analgesic</td>
<td>paroxetine hydrochloride</td>
<td>Aropax; Extine.</td>
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<tr>
<td></td>
<td></td>
<td>moclobemide</td>
<td>Aurorix; Amira; Arima; Clobemix; Maosig.</td>
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<td>nortriptyline hydrochloride</td>
<td>Allegron</td>
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<td>Anafranil</td>
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<td>citalopram hydrobromide</td>
<td>Celafram; Ciazil; Cipramil; Citalopram-RL.</td>
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<td>dothiepin hydrochloride</td>
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<td>reboxetine mesylate</td>
<td>Edronax</td>
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<td>venlafaxine hydrochloride</td>
<td>Efexor-XR</td>
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<td>amitriptyline hydrochloride</td>
<td>Endep</td>
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<td>escitalopram oxylate</td>
<td>Esipram; Lexapro.</td>
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<td>mianserin hydrochloride</td>
<td>Lumin</td>
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<td>fluvoxamine maleate</td>
<td>Luvox</td>
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<td><strong>Antipsychotics</strong></td>
<td>Psychosis; mania; behavioural disturbances associated with dementia</td>
<td>clozapine</td>
<td>Clozaril</td>
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<td>sodium valproate</td>
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<td>olanzapine</td>
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<td>Stemetil</td>
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<td>Movement disorders; Parkinson's disease</td>
<td>benzhexol hydrochloride</td>
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<td>benztropine mesylate</td>
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<td>carbidopa; levodopa</td>
<td>Kinson; Levohexal; Sinemet</td>
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<td>bromocriptine mesylate</td>
<td>Kripston; Parlodel</td>
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<td>benserazide hydrochloride; levodopa</td>
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<td>pergolide mesylate</td>
<td>Permax</td>
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<td>amantadine hydrochloride</td>
<td>Symmetrel</td>
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<td>tetrabenazine</td>
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<td><strong>Antihistamines</strong></td>
<td></td>
<td>loratadine</td>
<td>Alleline; Allereze; Claratyne;</td>
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<td>pheniramine maleate</td>
<td>Avil</td>
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<td>Used for:</td>
<td>Active Ingredient:</td>
<td>Brand Names* containing the constipating substance:</td>
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<td>oxcarbazepine</td>
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<td>Tegretol;</td>
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<td>gabapentin</td>
<td>Gabalexal; Neurontin</td>
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<td>Nifedipine</td>
<td>Adalat; Adefin; Nifehexal</td>
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<td>Methyldopa</td>
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<td>Enalapril maleate</td>
<td>Alphapril; Amprace; Enahepal; Renitec</td>
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<td>Amlodipine maleate</td>
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<td>Irbesartan</td>
<td>Avapro; Karvea</td>
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<td>Amlodipine besylate; Atorvastatin calcium</td>
<td>Caduet</td>
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<td>Diltiazem hydrochloride</td>
<td>Cardizem CD</td>
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<td>Perindopril arginine</td>
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<td>Cozaar</td>
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<td>Indapamide hemihydrate</td>
<td>Dapa-Tabs; Indahexal; Insip; Napamide; Natrilix</td>
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<td>Lisinopril dihydrate</td>
<td>Fibsob; Liprace; Lisodur; Prinivil; Zestril</td>
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<td><strong>Used for:</strong></td>
<td><strong>Active Ingredient:</strong></td>
<td><em><em>Brand Names</em> containing the constipating substance:</em>*</td>
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<td>Fosinopril sodium</td>
<td>Fosipril; Hyforil; Monace; Monopril</td>
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<td>Hydrochlorothiazide; Irbesartan</td>
<td>Karvezide</td>
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<td>Telmisartan</td>
<td>Micardis</td>
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<td>Prazosin hydrochloride</td>
<td>Minipress; Pressin</td>
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<td>Trandolapril</td>
<td>Odrik; Tranalpha</td>
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<td>Ramipril</td>
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<td>Pantoprazole sodium sesquihydrate</td>
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<td>Ranoxy; Zantac</td>
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<td>Cimetidine</td>
<td>Tagamet</td>
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* NB: this list provides examples only, and does not list not all medications in a particular class.
### APPENDIX 2: Fibre content of some common foods

<table>
<thead>
<tr>
<th>Food type</th>
<th>Examples</th>
<th>Fibre content in grams</th>
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<tbody>
<tr>
<td><strong>Breads &amp; Cereals</strong></td>
<td>Wholemeal, 1 slice</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mixed grain, 1 slice</td>
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</tr>
<tr>
<td></td>
<td>White, 1 slice</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Uncle Toby's Bran Plus, ½ cup</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>All Bran, ½ cup</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Bran Flakes, ½ cup</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Weet-Bix Hi Bran, 2 biscuits</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Weet-Bix; Vita-Brits, 2 biscuits</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Porridge, cooked, ½ cup</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Cornflakes, 1 cup</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Muesli, ½ cup</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unprocessed Bran, 2 tablespoons</td>
<td>4</td>
</tr>
<tr>
<td><strong>Rice &amp; Pasta</strong></td>
<td>Brown rice, boiled, ½ cup</td>
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</tr>
<tr>
<td></td>
<td>White rice, boiled, ½ cup</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Wholemeal Pasta, cooked, ½ cup</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Pasta, white boiled, ½ cup</td>
<td>1</td>
</tr>
<tr>
<td><strong>Vegetables &amp; Legumes</strong></td>
<td>1 Potato, boiled with skin on</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1 Potato, boiled and peeled</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mashed potato, ½ cup</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Peas, ½ cup</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Beans, green, boiled ½ cup</td>
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</tr>
<tr>
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<td>Carrots, boiled, ½ cup</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Corn, ½ cup</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Cauliflower, ½ cup</td>
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<tr>
<td></td>
<td>Broccoli, 30g</td>
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</tr>
<tr>
<td></td>
<td>Pumpkin, ½ cup</td>
<td>3.5</td>
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<td>Spinach, ½ cup</td>
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<tr>
<td></td>
<td>Baked beans, ½ cup</td>
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<tr>
<td></td>
<td>Lentils, boiled, ½ cup</td>
<td>3</td>
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<tr>
<td></td>
<td>Red kidney beans, 100g</td>
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<td></td>
<td>1 Tomato</td>
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<td></td>
<td>Zucchini, ½ cup</td>
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<tr>
<td><strong>Fruit</strong></td>
<td>1 piece fruit with skin on, medium size</td>
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<tr>
<td></td>
<td>Banana, 1 medium</td>
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</tr>
<tr>
<td></td>
<td>Sultanas, ½ cup</td>
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</tr>
<tr>
<td></td>
<td>Prunes, 3</td>
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</tr>
<tr>
<td></td>
<td>Orange, 1 medium</td>
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</tr>
<tr>
<td></td>
<td>Juice, orange, 200ml</td>
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<tr>
<td><strong>Cake, biscuits and nuts</strong></td>
<td>Nuts, mixed, 30g</td>
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<tr>
<td></td>
<td>Cake, plain</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Biscuits, plain, sweet</td>
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</tr>
<tr>
<td></td>
<td>2 Wheatmeal biscuits</td>
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<tr>
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<td>2 SAO biscuits</td>
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APPENDIX 3: Recipes to increase dietary fibre content

1. Prune Supplement

**Ingredients**
- 1.33 litres prune juice (hot)
- 720g pureed apple
- 525g All Bran

**Method**
- Add hot prune juice to ingredients and mix well.
- Give 1 to 2 tablespoons twice per day.

Commercially available prune juice may be used, or prune juice can be made as follows:
- 1kg Prunes (pitted)
- 1.25 litres of water.

Cook pitted prunes in water until soft. Puree prunes then pass through a strainer to make prune juice.

2. Fruit and fibre porridge.

This porridge was trialled on 20 residents in Sweden. Ten residents received the porridge, they were found to have a daily bowel movement without the use of laxatives 73% of the time, with less discomfort. Ten residents did not receive the porridge, they were found to have a daily bowel movement without the use of laxatives 23% of the time. The cost for laxatives was 93% lower for the group eating the porridge.

**Fruit and fibre porridge** (18-20 servings)

**Ingredients**
- Flax seeds 0.2L
- Prunes (chopped) 0.2L
- Apricots (chopped) 0.2L
- Raisins 0.1L
- Water 2.8L
- Salt 15ml
- Rolled oats 0.8L
- Oat bran 0.4L

**Method**
Mix together the flax seeds, chopped prunes, chopped apricots, raisins, water and salt. Let stand overnight. Next morning, add the rolled oats and oat bran and bring to the boil for 3-5 minutes, stirring constantly. Add extra water if too thick.
APPENDIX 4
GUIDELINES FOR THICKENING MOVICOL

Dr Margaret McGarritty, St Joseph’s Hospital, Auburn NSW supplied the following information. The guidelines are based on trials conducted by Julie Labra, Speech Pathologist at St Joseph’s Hospital Speech Pathology and Dietetics Department in February 2007.

Movicol should only be thickened with Xanthum-based thickeners. Starch-based and guar-gum thickeners are NOT appropriate, as they water down the consistency and/or become lumpy.

Suitable Xanthum-based products include:
- Flavour Creations ready-to-drink / pre-thickened fluids;
- Keltrol F;
- Easy Thick (gluten free);
- Thick Plus II.

For information regarding the above products, contact Flavour Creations:
Web address: http://www.flavourcreations.com.au  Ph: 07 3879 1900
Email: sales@flavourcreations.com.au

<table>
<thead>
<tr>
<th>Unsuitable starch-based or guar gum products include:</th>
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<tbody>
<tr>
<td>Resource pre-thickened drinks;</td>
</tr>
<tr>
<td>Resource thicken-up;</td>
</tr>
<tr>
<td>Guarcol;</td>
</tr>
<tr>
<td>Supercol-U;</td>
</tr>
<tr>
<td>Pre-gel;</td>
</tr>
<tr>
<td>Karicare;</td>
</tr>
<tr>
<td>Clear gel;</td>
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<tr>
<td>Nutilus;</td>
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<tr>
<td>Liquithick.</td>
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</table>

Use of pureed fruit and yoghurt is NOT recommended. After adding the Movicol, the consistency becomes watery.

The following method is suggested when mixing Movicol with pre-thickened Flavour Creations drinks. The method is appropriate for people who have been recommended to have nectar/semi thick & honey thick fluids:

1. Use pre-thickened “Flavour Creations – Level 3 / PUDDING-thick fluid”;
2. Pour a quarter (¼) of the thickened fluid tub into a cup;
3. Add the Movicol sachet and stir;
4. Pour another quarter (¼) of the thickened fluid tub into the cup and stir.

(NB: in total only half a tub of pre-thickened drink is required. Any flavour is suitable).

If you do not have access to “Flavour Creations – Level 3 / PUDDING thick pre-thickened drinks”, you will need to use one of the Xanthum-based thickening powders mentioned above to thicken half (½) a cup of water first, following the instructions for “Level 3 / PUDDING-thick” consistency. Then add the Movicol as described in steps 2-4 above.
SECTION EIGHT: REFERENCES


11. Orr W, Chen C. Aging and Neural Control of the GI Tract IV. Clinical and physiological aspects of gastrointestinal motility and aging *AJP - Gastrointestinal and Liver Physiology.* 2002;283;G1226 - G1231.


93. Merl H, Bauer L. *Time to think about Aged Care & Dementia*. Sydney: Central Coast Dementia Advisory Service, North Sydney Central Coast Health, Central Coast Division of General Practice; 2005.


SECTION NINE: ANNOTATED BIBLIOGRAPHY

The following papers and other resources will be helpful in managing bowel problems and providing a palliative approach to bowel care for residents with advanced dementia.


This paper from the UK is written to assist care staff understand stomas and the care of a resident with a stoma. The paper describes different types of stoma; and provides solutions to common problems associated with stomas, including sore skin, odour and leaks, hernias, and dietary advice.


This paper provides information that will assist registered nurses obtain a comprehensive bowel history, and undertake a physical examination by palpating the abdomen.


This is a photo guide to assessing the abdomen. It contains seven pictures with descriptions detailing inspection, auscultation, percussion and palpation of the abdomen. This paper would be useful for any registered nurse who needs to refresh his/her skills in physical assessment of the abdomen.


These two papers provide a pictorial explanation of the procedure required to undertake a digital rectal examination. These would be useful for any registered nurse who needs to refresh his/her skills in digital rectal examination.


This evidence based information sheet supersedes an earlier (1999) publication and provides up to date evidence regarding management of constipation in older adults.

These guidelines provide comprehensive information to assist doctors and nurses discuss prognosis and end of life issues with people with eventually terminal conditions, and their caregivers. These guidelines would be very useful to use as part of education sessions relating to communicating difficult issues. Topics included in the guidelines are timing of discussions, preparation, setting, how to discuss prognosis and end-of-life issues, facilitating hope, commencing or changing treatments, discussing future symptom management, discussing the process of death and dying, managing conflict, and discussing medically futile treatments.

The guidelines can be retrieved for use from:


8. North West Melbourne Division of General Practice. GP and Residential Aged Care Kit. Clinical Information Sheet: Pneumonia; and


These information sheets were written to assist general practitioners and nurses in residential aged care facilities involved in the care of residents with two common causes of infection in aged care facilities: pneumonia and urinary tract infection. The information contained in each sheet includes background information about the issue, assessment, investigations and management of the infection. Information enabling the clinician provide palliation of symptoms is also included.

The information sheets can be retrieved for use from:

http://www.nwmdgp.org.au/pages/after_hours/GPRAC-CIS-12.html (pneumonia) and