9. Opioid-induced constipation emerging care bundle

9.1. Background

Opioids are effective in the treatment of pain, but their use is associated with constipation and other gastrointestinal effects that are often difficult to manage. In patients with pain, opioid-induced constipation (OIC) can add to their discomfort and may induce some patients to decrease or stop their opioid therapy to relieve or avoid constipation.[31] When a balance between pain relief and development of constipation cannot be achieved, it impairs a patient's quality of life and compromises effective pain management.[32]

9.1.1. Care bundle elements

The elements in this care bundle seek to reduce OIC in patients who are prescribed and administered opioids (Table 9.1.1).

Table 9.1.1: Care bundle elements for OIC

Element reference	OIC care bundle element – description
One *See 9.2*	Provide patients/consumers and families/whānau with information about opioid use and bowel health, and strategies to prevent and manage OIC, in formats appropriate to their needs.
Two *See 9.3*	When prescribing and administering opioids, co-prescribe laxatives and administer accordingly (unless contraindicated).

[31] M Camilleri, D Drossman, G Becker, et al. 2014. Emerging treatments in neurogastroenterology: a multidisciplinary working group consensus statement on opioid-induced constipation. *Neurogastroenterology and Motility* 26: 1386–95.

[32] R LoCasale, C Datto, H Wilson, et al. 2016. The burden of opioid-induced constipation: discordance between patient and health care provider reports. *Journal of Managed Care & Specialty Pharmacy* 22(3):236–45.

Element reference	OIC care bundle element – description
Three *See 9.4*	When prescribing and administering opioids, include non-pharmacological interventions in the care plan (for example, dietary measures and/or fluid prescription).
Four *See 9.5*	Monitor and document bowel movements (minimum daily), and effectiveness of any actions taken, using evidence-based guidelines and methods.
Five *See 9.6*	Regularly educate staff about opioid use and OIC, and risk reduction strategies. Education includes assessment of knowledge and skills, educational intervention/s and reassessment.

9.1.2. Outcome measure for OIC

Table 9.1.2 describes the outcome measure for use with the care bundle designed to reduce OIC.

Table 9.1.2: Opioid-induced constipation bundle outcome measure

Measure	Formula	Operational definitions	Exclusions	Population
Percentage of patients administered an opioid with bowels not open for > 3 days	**Numerator:** Total number of patients where bowels not open for > 3 days **Denominator:** Total number of patients where an opioid was administered	**Constipation:** Bowels not open for > 3 days (where day 1 is the day when an opioid was first administered) **Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids	Nil	Age 12 years and over admitted to a hospital inpatient area

Measure	Formula	Operational definitions	Exclusions	Population
		Administered: When a medicine has been given to a patient; this includes self-administration by the patient		

9.2. Element One

Provide patients/consumers and families/whānau with information about opioid use and bowel health, and strategies to prevent and manage OIC, in formats appropriate to their needs.

9.2.1. Background

Chronic pain management and treatment side effects, including OIC, present complex challenges for patients and their health professionals.[33] Constipation and problems with defecation can be taboo subjects and some health care professionals can neglect the issue.[34]

Patient-focused interventions that engage patients actively in their care can have a beneficial effect on patient experience and health status. Such interventions include using written materials to improve health literacy.[35]

9.2.2. Provide information to patients/consumers and families/whānau about opioid use and bowel health

In an effort to reduce OIC and improve patient experience, teams involved in the safe use of opioids national collaborative focused on providing patients and families with information about OIC (Table 9.2.2).

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[33] R LoCasale, C Datto, H Wilson, et al. 2016. The burden of opioid-induced constipation: discordance between patient and health care provider reports. *Journal of Managed Care & Specialty Pharmacy* 22(3):236–45

[34] Dorthe V. Tomsen, Pharmacist, Area Manager of Clinical Pharmaceutical Services, Capital Regional Pharmacy, Hillerød, Denmark, personal communication.

[35] A Coulter, J Ellins. 2007. Effectiveness of strategies for informing, educating, and involving patients. *British Medical Journal* 335: 24–27.

Table 9.2.2: Purpose, change ideas and lessons learned in relation to providing information about OIC

What	How	Lessons learned
Provide patient-centric education using standardised information for consistent messaging  *Document in the clinical record when providing patients with information:* ***what was given, who got it, who gave it and when.***	• Discuss with patients their current knowledge. • Ask patients to help with developing a patient information leaflet. That is, use a patient co-design approach. • Obtain cultural review and approval for any patient information resource. • Develop a guidance resource (patient constipation pamphlet) for clinical staff on the correct use of the patient information leaflet. • Educate clinical staff on how to use the patient information leaflet. • Introduce the leaflet and display them in the wards. • Encourage the use of leaflets at education sessions and handover meetings. • Routinely include leaflets in patient pre-admission packs and give them to patients at pre-admission clinics, at Early Recovery After Surgery (ERAS) boot camps and on admission to the ward. • Identify a nurse to be responsible for sustaining the change idea on the wards.	• Patients were interested in how laxatives work. • Staff assumed patients would not want to know how laxatives work. • Patients accepted the patient information leaflet as a tool for partnership. • Challenges were the time required to roll out the information and ensuring the sustainability of the process. • A dedicated staff member is needed to sustain the change idea on the ward. • How staff used the patient information leaflet varied, which prompted the development of a guidance resource (patient constipation pamphlet). • The information leaflet was included in the ward admission pack for the nurse to discuss with the patient. • Patients did not always receive the information. • Patients remember more information if a staff member goes through it with them.

What	How	Lessons learned
Improve patient awareness	**Resources produced during the collaborative:** **Counties Manukau Health Patient Information Leaflet** **Counties Manukau Health Staff Guide on Using Patient Information Leaflet** **MidCentral DHB Patient Information Leaflet** **Capital and Coast DHB Patient Information Leaflet** ***Consider equity and cultural appropriateness.*** • Develop a patient information poster. • Work with patients to identify appropriate language for the poster. • Work with local kaumātua (elders in Māori society) to ensure the poster is culturally appropriate. • Display patient information posters in every bathroom. • Encourage patients to discuss their bowel movement habits with nursing staff.	• It is necessary to engage with the patient population to develop suitable and appropriate posters. • It is necessary to work with cultural advisors to ensure the posters use appropriate language.

What	How	Lessons learned

Give patients easy access to information – information at bedside	**Resource produced during the collaborative:**
	
	MidCentral DHB Patient Information Poster
	
	Consider equity and cultural appropriateness.
	
	• Develop a patient information card (in-flight card).
	• Place at the patient's bedside within reach of the patient (as patient can be immobile).
	• Laminate the card, make it easy-to-read and provide information about:
	  ○ what an opioid is
	  ○ pain relief
	  ○ managing pain – 'what you can do'
	  ○ constipation.
	
	Consider equity and cultural appropriateness.
		• A hook was needed to hang the in-flight card on the bedside locker.

9.2.3. Measurement to support Element One

Table 9.2.3 describes the process measure for use with Element One in the OIC care bundle.

Table 9.2.3: Process measure for Element One in the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of patients provided with information	**Numerator:** Total number of patients/consumers and families/whānau who received information **Denominator:** Total number of patients who have had an opioid prescribed	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Family/whānau:** Includes any family member, friend or caregiver who is supporting the patient during their inpatient stay; the information is provided so the support person can help the patient to: 1) identify/report any OIC; and 2) manage the OIC if it occurs **Information about opioid use and bowel health:** Explanation about what opioids are, the different types of opioids, and constipation as a side effect **Information about strategies to prevent and manage opioid-induced constipation:** Explanation of how to reduce the likelihood of OIC, how to prevent it and, if the patient experiences constipation, how to manage it **In formats appropriate to their needs:** Information needs to be tailored to the patient to optimise their understanding. Information should be provided to patients in a format that suits their level of literacy and preference, such as patient leaflets/posters, one-on-one discussion or videos	The patient is not in a state to receive or understand the information and the family/whānau is unavailable	Age 12 years and over admitted to a hospital inpatient area, or their support person

Measure	Formula	Operational definition	Exclusion	Population
		Prescribed: In practice, authorised an order to supply or administer a substance used or capable of being used to prevent, treat or palliate a disease, or the symptoms or effects of a disease for the purpose of clinical treatment of a patient under the authorising person's care		

9.2.4. Template

Refer to Appendix 3 for the measurement template to use with this care bundle.

9.2.5. Tips

- ✓ Develop a reliable process for providing information to patients/consumers and families/whānau.
- ✓ It is important for staff to talk with patients about any posters or any written or visual information provided.

9.3. Element Two

When prescribing and administering opioids, co-prescribe laxatives and administer accordingly (unless contraindicated).

9.3.1. Background

Assessing OIC early and using prophylactic treatment with laxatives may decrease the burden of constipation in patients on opioid treatment.[36]

[36] A Nelson, M Camilleri. 2016. Opioid-induced constipation: advances and clinical guidance. *Therapeutic Advances in Chronic Disease* 7(2): 121–34.

9.3.2. Co-prescribe and administer laxatives

In an effort to reduce OIC and improve patient experience, teams involved in the safe use of opioids national collaborative focused on co-prescribing and administering laxatives (Table 9.3.2).

Table 9.3.2: Purpose, change ideas and lessons learned in relation to co-prescribing and administering laxatives

What	How	Lessons learned

Co-prescribe and administer laxatives	• Introduce a laxative step-wise guide for clinical staff on managing OIC.
	• The guide should include preventive non-pharmacological approaches, laxative ladder and the importance of documentation.
	• Using the completed guide:
	  ○ display it on the wards
	  ○ display it in A3 size in clinical areas
	  ○ use it at education sessions and handover meetings
	  ○ use it as an education resource at orientation sessions for resident medical officers
	  ○ display it in doctors' areas of the wards for reference and reinforcement.
	
	Resources produced during the collaborative:
	
	Counties Manukau Laxative Step-wise Guide
	
	Counties Manukau DHB Laxsol Prescribing Sticker
		• The guide needs to have simple graphics and be easy to use.
		• Simplicity encourages staff to use the guide.
		• The guide was useful for increasing awareness.
		• The rate of appropriate prescribing and administration increased.
		• A patient's bowel status has become a discussion point at ward handover and huddle sessions.
		• Staff attitude to constipation has changed from seeing it as an accepted complication to seeing it as an unacceptable harm.
		• It is necessary to reinforce the key messages at each medical staff run change.
		• It is necessary to talk with clinicians about the resource and the rationale behind it.

What	How	Lessons learned
	MidCentral DHB Guideline for Management and Prevention of Opioid Related Constipation	
Use stickers	• Develop stickers to remind staff to co-prescribe laxatives. • Print a 'Regular Opioid – Regular Laxative' sticker and attach it to the top of computer screens as a prompt.	• Stickers are low cost and easy to implement. • Stickers are enduring and are still on the computer screens. • This approach may have been too subtle.

9.3.3. Measurement to support Element Two

Table 9.3.3 describes the process measure for use with Element Two in the OIC care bundle.

Table 9.3.3: Process measure for Element Two in the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of patients to whom laxatives were prescribed within 24 hours of an opioid being prescribed, and the laxative administered	**Numerator:** Total number of patients to whom a laxative was prescribed within 24 hours of an opioid being prescribed, and the laxative administered consistent with a local guideline	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Prescribing**: Authorising an order to supply or administer a substance used or capable of being used to prevent, treat or palliate a disease, or the symptoms or effects of a disease for the purpose of clinical treatment of a patient under the authorising person's care	Any contraindications	Age 12 years and over admitted to a hospital inpatient area

Measure	Formula	Operational definition	Exclusion	Population
consistent with a local guideline	**Denominator:** Total number of patients to whom an opioid was administered	**Administering:** Giving a medicine to a patient; this includes self-administration by the patient **Co-prescribe laxatives:** Prescribe laxatives within one day of the opioid being prescribed and administered **Administer accordingly**: 'Accordingly' here indicates laxatives that are administered according to the prescription. **Type/s of laxative:** Stimulant, softener and osmotic **List of agreed laxatives**: Lactulose, macrogol containing laxatives, bisacodyl, sennoside B with or without docusate sodium **Routes of administration:** Oral, enteral (eg, nasogastric) or rectal **Frequency of laxative**: Prescribed regular and/or PRN laxative, following local guidelines (taking into account the frequency the opioid has been prescribed, ie, regular or PRN) **Contraindications**: Including but not limited to: diarrhoea, allergy to specific laxative products, faecal impaction (note: macrogol containing laxatives are not contraindicated in faecal impaction), ileus, bowel obstruction, gastrointestinal surgeries where laxatives are contraindicated,		

Measure	Formula	Operational definition	Exclusion	Population
		gastrointestinal bleeding, patient intolerant to bowel stimulation, toxic megacolon, neurogenic bowel conditions where laxatives are contraindicated, small bowel bacterial overgrowth syndrome cases		

9.3.4. Template

Refer to Appendix 3 for the measurement template to use with this care bundle.

9.3.5. Tips

- ✓ Introducing a laxative alert for automated dispensing cabinets when accessing an opioid is a good reminder for the nursing staff.
- ✓ Electronic prescribing and administration systems – prompt prescribers to add a laxative when prescribing an opioid.

9.4. Element Three

When prescribing and administering opioids, include non-pharmacological interventions in the care plan (for example, dietary measures and/or fluid prescription).

9.4.1. Background

Conventional management of constipation includes non-pharmacological management, for example, drinking more fluids, increasing physical activity and increasing fibre content in the diet. These measures may be effective in some patients with mild to moderate OIC.[37]

[37] S Dorn, A Lembo, F Cremonini. 2014. Opioid-induced bowel dysfunction: epidemiology, pathophysiology, diagnosis, and initial therapeutic approach. *American Journal of Gastroenterology Supplements* 2: 31–37.

9.4.2. Include non-pharmacological interventions

In an effort to reduce OIC and improve patient experience, teams involved in the safe use of opioids national collaborative focused on providing a natural laxative that patients readily accepted (Table 9.4.2).

Table 9.4.2: Purpose, change ideas and lessons learned in relation to providing a natural, well-accepted laxative

What	How	Lessons learned
Provide natural laxative to patients	• Organise with kitchen staff to routinely provide products that contain kiwifruit (Kiwi Crush™,[38] Phloe™[39]) and prunes to patients as breakfast options, subject to special dietary requirements. • One option is to purchase dry prunes and steam them before serving to make them more palatable. • Another option is to make Kiwi Crush in bulk and decant it into cups with caution labels (about allergy – see resource below) immediately before serving. • Promote the use of Kiwi Crush or Phloe and prunes to staff and patients. • Discuss use of Kiwi Crush or Phloe and prunes at ward handover meetings and education sessions.	• These change ideas are easy to implement. • Patients responded positively to Kiwi Crush and prunes and liked having a natural alternative. • Supplies are easy to procure. • Placing Kiwi Crush and prunes on the breakfast tray removed an element of choice so uptake was very high. • The label worked well for those patients whose allergy had not been disclosed. A picture on the label bypassed language barriers. • Kitchen staff had to be educated on how to mix Kiwi Crush to provide a consistent mixture for all patients.

[38] www.kiwicrush.co.nz

[39] www.phloe.co.nz

What	How	Lessons learned
	Resource produced during the collaborative: KIWICRUSH CAUTION:  Do not drink if you have any allergy to kiwifruit **Lakes DHB Kiwi Crush Label**	

9.4.3. Measurement to support Element Three

Table 9.4.3 describes the process measure for use with Element Three in the OIC care bundle.

Table 9.4.3: Process measure for Element Three in the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of patients provided with a dietary intervention to prevent or treat constipation	**Numerator:** Total number of patients provided with a dietary intervention to prevent or treat constipation **Denominator:** Total number of patients who have had an opioid prescribed	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Prescribing**: Authorising an order to supply or administer a substance used or capable of being used to prevent, treat or palliate a disease, or the symptoms or effects of a disease for the purpose of clinical treatment of a patient under the authorising person's care	Any contraindications or cautions	Age 12 years and over admitted to a hospital inpatient area

Measure	Formula	Operational definition	Exclusion	Population
		Administering: Giving a medicine to a patient; this includes self-administration by the patient **Care plan:** Documentation that provides direction for individualised care of the patient/consumer **Dietary measures:** Examples include prunes and Kiwi Crush (or other kiwifruit extract product); serving sizes decided by dietitian or based on hospital policy **Fluid prescription:** Use of fluids to prevent or treat dehydration, a known risk factor for constipation **Contraindications:** Including but not limited to: diarrhoea, allergy to specific products, faecal impaction, ileus, bowel obstruction, gastrointestinal surgeries where laxatives are contraindicated, gastrointestinal bleeding, patient intolerant to bowel stimulation, toxic megacolon, neurogenic bowel conditions where laxatives are contraindicated, small bowel bacterial overgrowth syndrome cases		

9.4.4. Template

Refer to Appendix 3 for the measurement template to use with this care bundle.

9.4.5. Tip

✓ Mobilising patients, as appropriate, is recommended as a useful adjuvant for preventing and managing constipation.

9.5. Element Four

Monitor and document bowel movements (minimum daily), and effectiveness of any actions taken, using evidence-based guidelines and methods.

9.5.1. Background

The presence of OIC can significantly impact a patient's quality of life and can lead them to reduce their dose or even stop opioid pain therapy.[40] Health care providers may not always be aware that patients are experiencing significant OIC.[41] Nurses should monitor patient bowel habits as well as the quantity and quality of stools. Diagnosis of OIC should begin with a detailed patient history that includes frequency of bowel movements, the consistency of stool, and the presence of straining, pain, nausea and vomiting.[42]

9.5.2. Monitor and document bowel movements

In an effort to reduce OIC and improve patient experience, teams involved in the safe use of opioids national collaborative focused on improving bowel monitoring of patients (Table 9.5.2).

[40] M Camilleri, D Drossman, G Becker, et al. 2014. Emerging treatments in neurogastroenterology: a multidisciplinary working group consensus statement on opioid-induced constipation. *Neurogastroenterology and Motility* 26: 1386–95.

[41] R LoCasale, C Datto, H Wilson, et al. 2016. The burden of opioid-induced constipation: discordance between patient and health care provider reports. *Journal of Managed Care & Specialty Pharmacy* 22(3): 236–45.

[42] M Zdanowicz. 2016. Treatment of opioid-induced constipation: a therapeutic update. *Journal of Advanced Practices in Nursing* 1: 3.

Table 9.5.2: Purpose, change ideas and lessons learned in relation to improving bowel monitoring

What	How	Lessons learned

Improve monitoring and documentation of bowel movements	• Ensure staff complete the bowel monitoring section on a patient's care plan.
	• Educate staff on the importance of monitoring and documentation.
	• Undertake regular audits and make the results visible to staff.
	• Create a bowel stamp for use in clinical notes that contains specific fields to improve documentation in the clinical notes.
	• Introduce the stamp at ward handover and staff meetings.
	• Provide multiple stamps on the ward so they are readily available.
	• Give feedback to staff on audit results.
	
	Resources produced during the collaborative:
	
	Counties Manukau DHB Bowel Stamp
		• Measures contributing to successful implementation included education of staff, regular auditing and making results visible.
		• The stamp is a useful reminder to document bowel activity.
		• This change idea is easy to implement when staff are engaged.
		• The stamp effectively communicates patient bowel status to the multidisciplinary team.
		• The stamp facilitates audit as entries on bowel activity are clearly visible.
		• Use of the stamp has increased awareness of patient bowel status and has led to early intervention where indicated.
		• Challenges included that:
		  ○ some staff did not use stamp regularly
		  ○ some staff only completed part of the stamp
		  ○ staff did not always use the stamp on night shift if patients had not moved their bowels.

What	How	Lessons learned
	26mm Bowels Opened this shift Yes ○ No ○ Date last opened __/__/__ 27mm **Nelson Marlborough DHB Bowel Stamp**	• The staff did not document type of bowel motion, so stamp was amended to include 'type number' as described on the Bristol Stool Chart.[43] • Other clinical areas spontaneously adopted the stamp.
Improve accuracy of nursing documentation for bowel activity	• Introduce a new format for nursing documentation for elimination as part of 'focus charting': ○ Ensure staff document 'days since bowels last opened' in clinical notes ○ Divide elimination into the categories of bladder and bowel	• Staff were involved in developing the cue card. • Multiple communication methods are needed to educate all staff and make them aware of changes.

[43] Heaton KW, Lewis SJ. 1997. Stool form scale as a useful guide to intestinal transit time. *Scandinavian Journal of Gastroenterology* 32(9): 920–4.

What	How	Lessons learned

- For bowel, every nursing shift writes if bowels opened and type from Bristol Stool Chart.

- Hold a project kick-off meeting with nursing staff to discuss OIC and new nursing documentation.
- Use a patient story to demonstrate the issue to staff.
- Introduce a nursing cue card to prompt nursing staff (nursing-led design of cue card).

Resources produced during the collaborative:

REPORT ON BOWELS IN THE CLINICAL NOTES USING FOCUS

Report on progress to the team using an evaluative statement

Date Time	*Focus/Problem*	*Clinical note entry*
	Bowels	**E:** Bowels open, type (according to Bristol stool chart) and the amount.

Report on an identified patient problem to the team using A I E

Date Time	*Focus/Problem*	*Clinical note entry*
C: 2219	Bowels	**A: BNO ?/7 (state the number of days bowels not open)** *State any supporting subjective and objective assessment data, eg patient comments, usual bowel pattern, any discomfort, if abdomen distended, result of PR examination.* **I: State the action you took as a result of this concern. Include past, present and future plan.** *eg: Discussion with medical team, plan for future management, food and fluids, the use of laxatives, suppositories, enemas.* **E: State how the patient responded to the actions taken.** *eg: What effect your actions had, whether the bowels opened and how the patient feels now.*

MidCentral DHB's Bristol Stool Chart Card

What	How	Lessons learned

BRISTOL STOOL CHART			
	Type 1	Separate hard lumps	Very constipated
	Type 2	Lumpy and log like	Slightly constipated
	Type 3	A log shape with cracks in the surface	Normal
	Type 4	Like a smooth, soft log or snake	Normal
	Type 5	Soft blobs with clear-cut edges	Lacking fibre
	Type 6	Mushy consistency with ragged edges	Inflammation
	Type 7	Liquid consistency with no solid pieces	Inflammation

MidCentral DHB's Stool Chart

9.5.3. Measurement to support Element Four

Table 9.5.3 describes the process measure for use with Element Four in the OIC care bundle.

Table 9.5.3: Process measure for Element Four in the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of patients who have had bowel function activity recorded in relevant documentation	**Numerator:** Total number of patients who have had bowel function recorded daily (or consistent with local guideline) **Denominator:** Total number of patients who were administered an opioid	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Monitor**: Assess bowel movements at least daily **Document**: Complete relevant documentation, which may include clinical notes, vital sign chart or any other patient-related documentation. This may vary by clinical area **Bowel movements**: Include any passage of stool from the rectum or stoma **Monitor and document effectiveness of any actions taken:** Monitor and document relevant clinical signs and symptoms that measure the impact of any therapeutic intervention used to manage or treat OIC **Evidence-based guidelines and methods:** Includes the use of monitoring protocols with adequate reliability as well as electronic and template-based methods of capturing bowel movement history. A guideline or method (therapeutic intervention) that is supported by evidence; these could be based on local expert opinion (lower-grade evidence) or, ideally, published literature (higher-grade evidence)	Nil	Age 12 years and over admitted to a hospital inpatient area

9.5.4. Template

Refer to Appendix 3 for the measurement template to use with this care bundle.

9.5.5. Tips

- ✓ Bowel movement assessment is encouraged using a recognised tool (for example, Bristol Stool Chart). The details may include: consistency, colour and volume of stool; presence or absence of blood and/or mucus; ease of defaecation; complete or incomplete evacuation; frequency; and if pain occurs during defaecation.
- ✓ Local application of lignocaine gel for haemorrhoids may provide relief from painful defecation.
- ✓ Identify how and where to store stamps on each ward.

9.6. Element Five

Regularly educate staff about opioid use and OIC, and risk reduction strategies. Education includes assessment of knowledge and skills, educational intervention/s and reassessment.

9.6.1. Background

Clinical staff education and coordination of care by health care professionals may help to meet the critical need to appreciate and proactively address the burden of OIC.[44] Staff education may take several forms; the evidence for any benefit or the best educational technique is inconsistent.[45]

[44] R LoCasale, C Datto, H Wilson, et al. 2016. The burden of opioid-induced constipation: discordance between patient and health care provider reports. *Journal of Managed Care & Specialty Pharmacy* 22(3): 236–45.

[45] SA Schug, GM Palmer, DA Scott, et al. 2015. *Acute Pain Management: Scientific Evidence, Fourth Edition 2015*. Melbourne: Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine.

9.6.2. Educate staff about opioid use and OIC

In an effort to reduce OIC and improve patient experience, teams involved in the safe use of opioids national collaborative focused on providing education to clinical staff (Table 9.6.2).

Table 9.6.2: Purpose, change ideas and lessons learned in relation to educating clinical staff on OIC

What	How	Lessons learned

Educate house officers to improve co-prescribing	• Invite a house officer to be part of the project team. Ask them to spend time with the other house officers to explain the rationale for prescribing laxatives with opioids.
	• Include the subject in the Post Graduate Year One orientation programme and medication safety.
	• Promote prescribing 'like for like' – that is, prescribing:
	  ○ PRN laxatives if PRN opioids have been prescribed
	  ○ regular laxatives if regular opioid analgesia has been prescribed.
		• Initial education was successful but not sustainable due to house officer rotations. Therefore education was included in orientation.
		• House officers were receptive to and genuinely interested in this work.

Educate nurses	• The clinical nurse manager spends time educating nurses on the ward. • Give reminders at staff meeting about the need to monitor patients' bowel movements and administer laxatives proactively. **Resources produced during the collaborative:** ***MidCentral DHB Opioid Quiz*** ***MidCentral DHB PowerPoint Presentation***	• The rate of patients receiving laxatives increased. • Improvement in practice was not universal across all staff.

What	How	Lessons learned

Provide staff education	• Provide multiple approaches to target education on OIC to medical and nursing staff. These can include:
	  ○ introducing a staff guideline on preventing and managing OIC
	  ○ using case studies, real examples or patient stories to help inform staff
	  ○ speaking at the Grand Round sessions.
	• Formal staff education sessions can be held to explain:
	  ○ the 'reducing harm from opioids' project
	  ○ how the project developed
	  ○ the methodology (process, balance and outcome measures)
	  ○ interventions
	  ○ future work.
		• It was difficult to provide education to all staff due to staff schedules.
		• Medical staff responded positively to Grand Round session.
		• Most nurses did not recognise tramadol as an opioid.
		• Most medical staff indicated they would prescribe ondansetron despite its constipating side effects.
		• Not all staff were able to be released from clinical areas to attend education sessions.
		• Eye-catching graphics are important in developing posters that get your message across.

9.6.3. Measurement to support Element Five

Table 9.6.3 describes the measure to evaluate the process of applying Element Five in the OIC care bundle.

Table 9.6.3: Process measure for Element Five in the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of staff who had assessment and education completed annually	**Numerator:** Total number of staff on a ward/hospital assessed, provided with an educational intervention, and reassessed for opioid and related OIC knowledge and management of OIC (annually) **Denominator:** Total number of permanent staff, and non-permanent staff employed more than 30 days on a ward/hospital	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Regularly:** Annually at a minimum **Staff**: All prescribers, nurses, pharmacists and other allied health professionals involved in prescribing, dispensing and administering opioids **Knowledge and skills**: Includes knowledge of risk of OIC, risk reduction strategies (including use of laxatives and non-pharmacological interventions), and monitoring/documentation requirements to detect OIC **Educational intervention/s**: Electronic, paper-based or other teaching method **Assessment/reassessment:** Electronic or paper-based appraisal of knowledge	Non-permanent staff employed 30 days or less	Permanent staff, and non-permanent staff employed more than 30 days

9.6.4. Template

Refer to Appendix 3 for the measurement template to use with this care bundle.

9.6.5. Tip

✓ Repeat education sessions regularly for maximum staff attendance.

9.7. Balancing measures

The suggested balancing measures are:

- uncontrolled pain (Table 7.1.2)
- diarrhoea (Table 9.7).

Table 9.7: Diarrhoea balancing measure for the OIC care bundle

Measure	Formula	Operational definition	Exclusion	Population
Percentage of patients with diarrhoea who had laxatives administered and/or used dietary measure/s	**Numerator:** Total number of patients with a documented episode of diarrhoea **Denominator:** Total number of patients on an opioid where a laxative was administered or dietary measure/s used	**Opioid:** All opioids (strong and weak, including but not limited to: morphine, oxycodone, fentanyl, pethidine, methadone, tramadol, dihydrocodeine, codeine); includes regular and/or PRN opioids **Diarrhoea:** Type 6 or 7 bowel movement on Bristol Stool Chart, or as measured on another recognised stool assessment tool **Type/s of laxative:** Stimulant, softener and osmotic **List of agreed laxatives:** Lactulose, macrogol containing laxatives, bisacodyl, sennoside B with or without docusate sodium, glycerol (rectal), paraffin liquid (rectal), sodium citrate (rectal)	Nil	Age 12 years and over admitted to a hospital inpatient area

Measure	Formula	Operational definition	Exclusion	Population
		Routes of administration: Oral, enteral (eg, nasogastric or other appropriate route) or rectal **Frequency of laxative:** Prescribed regular and/or PRN laxative, following local guideline (taking into account the frequency the opioid has been prescribed – ie, regular or PRN) **Administered:** Gave a medicine to a patient; this includes self-administration by the patient **Dietary measures:** Examples include prunes and Kiwi Crush (or other kiwifruit extract product); serving sizes decided by dietitian or based on hospital policy **Documented:** Completed relevant documentation, which may include clinical notes, or any other patient-related documentation. This may vary by clinical area. Bowel movement assessment using a recognised tool (eg, Bristol Stool Chart) is encouraged		