4. Gastrointestinal complications [5, 16, 113, 115, 116, 118, 120, 147-149]

Common gastrointestinal complications and recommended options for management are included in the table below.

If the condition does not improve with simple measures the patient should be referred back to the medical specialist.

Table 15: Gastrointestinal complications

Problem	Possible causes	Options for management
Diarrhoea • Key questions to determine the extent of the problem and potential causes: - What is the patient's normal bowel pattern, when did it change? - When does the diarrhoea occur? Is it associated with feeding times (oral or tube)? - How often does it occur? - What is the consistency/appearance/ colour? • Compare to Bristol stool chart *(See APPENDIX 5)* • Exclude other causes of diarrhoea before changing the feeding regimen: - Have there been any recent changes to the feeding regimen (feed type and/or rate/mode of administration? - Does the patient eat/drink orally? Have there been any recent changes? - Have there been any recent changes to medical management (e.g. medications and aperients) - Are there any other clinical symptoms – fever, nausea, pain, urgency? - Exclude intercurrent infection/ gastroenteritis. Has anyone in the family/social contact been unwell? - Check feed storage and preparation practices - Is the patient/carer following safe preparation and handling practices? (cleaning, hang times, feeding rate)	Infection	• Referral for medical review • Stool sample • Ensure patient remains hydrated until medical review
	Overflow diarrhoea (from faecal impaction due to constipation)	• Referral for medical review • Ensure patient remains hydrated until medical review
	Commonly implicated medications: • Antacids (magnesium salts) • Antibiotics • Histamine • H1 receptor blockers • Laxatives • Cytotoxics • Proton Pump Inhibitors • Hyperosmolar medications (e.g. ferrous sulphate, multivitamins, potassium chloride) • Magnesium sulphate • Sorbitol elixirs.	• Referral for review of medications/aperients

continued overleaf

Table 15: Gastrointestinal complications continued

Problem	Possible causes	Options for management
Diarrhoea continued	Enteral tube feed delivery issues (temperature, rate, volume, concentration, osmolality)	Ensure the tube feed is at room temperature prior to feeding. If the feed is kept in fridge, measure required volume and allow to stand for 30 minutes before use. Consider adjusting the feeding regimen: • Reduce rate of feeding • Reduce concentration of feed • Change from bolus to continuous feeding or administer bolus of a longer time period • Change to iso-osmolar feed • Consider specialised feed if impaired gut function (e.g. amino acid/ peptide based). Consider adjusting fibre content of feed: • Consider fibre-enriched feed or fibre supplementation if current feed does not contain fibre • Try a fibre-free feed if diarrhoea is occurring with fibre-enriched feed. Adjust intake of fibre in oral diet (if relevant)
Constipation • Key questions to determine the extent of the problem and potential causes: - What is the patients normal bowel pattern, when did it change? - When did the patient have their bowels open last? - Is there any straining/tearing/pain? How often? - What is the consistency/appearance/ colour of the stool? (See Appendix 5: Bristol Stool Chart) - Does the patient eat/drink orally? Have there been any recent changes? - Have there been any recent changes to medical management (e.g. medications and aperients)? - Are there any other clinical symptoms e.g. fever, night sweats?	Inadequate hydration	• Assess fluid requirements • Monitor fluid input
	Disruption of normal routine: • Inactivity/ immobilisation • Lack of toileting privacy.	• Discuss activity with physiotherapist/ managing team or GP • Consider change of feeding regimen.
	Other causes: • Neuromuscular disorders or brain injury • Hypothyroidism • Hypokalaemia • GI motility disorder	• Refer for review of medications • Consider adding: - Stool softeners - Appropriate laxatives - Prokinetic agents. • Consider establishing a bowel management regimen
	Commonly implicated medications: • Anticholinergics • Non-steroidal anti-inflammatory drugs (NSAIDs) • Bile acid sequestrants • Frusemide • Antidepressants. Previous misuse of laxatives	
	GI obstruction	• Refer to managing team or GP • Cease feeding

Continued overleaf

Table 15: Gastrointestinal complications continued

Problem	Possible causes	Options for management
Nausea • Key questions to determine the extent of the problem and potential causes: - When did the nausea start? - Is it persistent or intermittent? - Is it feed timing related? - Is it disease related? - Is it anxiety related? • Consider other issues that could be contributing to nausea (such as chemotherapy, radiotherapy, medications, antibiotic use)	Intolerance of current enteral tube feeding regimen: • Volume of feed too great • Rate of infusion too fast	Adjust regimen, consider: • Reducing bolus volume and/or delivery over longer period • Replacing bolus feeds with continuous feeding • More concentrated feed • Slower rate of feeding/extend period of feeding. Consider referral for trial of prokinetic
	Feed too cold when administered	Ensure feed at room temperature prior to feeding. If feed kept in fridge, measure required volume and allow to stand for 30 minutes before use.
	Increased intra-abdominal pressure due to constipation	*See section on constipation (page 52)*
	Side effect of medication	• Request review of medications • Consider prescribing anti-emetic/pro-kinetic medication
	Incorrect positioning of patient during feeding or movement/ repositioning too soon after completion of feeding	• Ensure patient is upright (>30 degrees) during feeding and for 30 minutes after feeding • Consider lying patient on right side • Liaise with other health professionals to ensure appropriate timing of interventions and care
	Stress and anxiety related to feeding	• Pleasant feeding environment • Relaxation techniques • Consider referral to other health professionals for anxiety management • Support from family/carers
Vomiting • Key questions to determine the extent of the problem and potential causes: - When did the vomiting start, was it sudden onset? - What is the volume? - What is the appearance? (colour, consistency) Important to determine if it is bilious or blood stained - When does it occur? - Is it associated with oral intake or feeding? - Is it preceded by nausea? - Has anyone in the family/social contacts been unwell? *NOTE: Some conditions may result in pooling and regurgitation of saliva, therefore the management strategies discussed here do not apply. Refer for medical review.*	Intolerance of current feeding regimen: • Volume of feed too great • Rate of infusion too fast	Consider adjusting the feeding regimen: • Reduce bolus volume and/or delivery over longer period • Replace bolus feeds with continuous feeding • Consider more concentrated feed • Slow rate of feeding/extend period of feeding Consider referral for trial of a prokinetic
	Incorrect positioning of patient during feeding	• Ensure patient is upright (>30 degrees) during feeding and for 30 minutes after feeding • Consider lying patient on right side • Liaise with other health professionals to ensure appropriate timing of interventions and care
	Gastro-oesophageal reflux disease (GORD)	• Optimisation of anti-reflux therapy with PPI • Consideration for use of prokinetics/post pyloric feeding • Referral back to surgeon for consideration of anti-reflux surgery
	Stress and anxiety related to feeding	• Pleasant feeding environment • Relaxation techniques • Consider referral to other health professionals for anxiety management • Support from family/carers