

Gastrointestinal toxicities

Myeloma Nurse Guide

The Myeloma Nurse Guide Series has been developed to enhance nurse knowledge, inform practice and support nurses in the delivery of high quality treatment and care to myeloma patients and families. The information has been reviewed by myeloma nurse and medical experts and should be used in conjunction with local and national policies, protocols and guidelines.

What are gastrointestinal toxicities in myeloma?

Gastrointestinal (GI) toxicity describes the adverse reaction of a treatment on the digestive system; symptoms include nausea, vomiting, diarrhoea, and constipation. GI toxicities are common side effects of myeloma treatments and can also occur with supportive medicines such as analgesia, bisphosphonates, antimicrobials, and proton pump inhibitors.

GI symptoms can also be caused by other conditions such as hypercalcaemia, autonomic neuropathy, infections and stress, and severity can be influenced by other factors, e.g. past history of GI disorders, diet and lifestyle factors.

Clinical features

Clinical symptoms include:

- Loss of appetite
- Nausea
- Vomiting
- Diarrhoea
- Constipation

Symptoms are common and usually mild but in some cases are more severe, leading to:

- Weight loss
- Dehydration and electrolyte imbalance
- Abdominal pain
- Difficulty in taking oral medications and adhering to treatment

Assessment and monitoring

Assessment features	Rationale
Patient history – onset, frequency and intensity of symptoms, treatment and medications, comorbidities	To determine potential causes of symptoms to guide investigations and management
Appetite, dietary intake, weight	To ensure patient is maintaining adequate nutritional status
Bowel function (frequency, consistency, pain) Abdominal examination to check for distension, obstruction, faecal impaction	To establish severity of symptoms and potential causes
Blood tests: FBC, biochemistry	To monitor for dehydration, risk of infection and bleeding
Stool samples for microbiology, including parasites or ova Oral inspection with swabs for microbiology	To check for presence of infection (e.g. <i>Clostridium difficile</i> causing diarrhoea, or candidiasis affecting mouth/upper GI tract)

Severity of symptoms can be graded, as shown in the Appendix.

Prevention and treatment

Nausea and vomiting

Nausea or vomiting is prevented and treated with anti-emetics such as oral domperidone or oral/IV metoclopramide. A 5HT-3 receptor antagonist (e.g. granisetron or ondansetron) is commonly used to prevent or treat chemotherapy-induced nausea and vomiting.

Note: prolonged use can cause constipation.

Continued nausea and vomiting may require treatments with haloperidol or levomepromazine. Patients with severe vomiting may need IV hydration, electrolyte replacement or enteral nutrition. In severe cases of nausea and vomiting the drug aprepitant is considered.

Anticipatory nausea or vomiting occurs when patients who have previously experienced vomiting with chemotherapy treatment, anticipate it happening again. An anxiolytic such as lorazepam may help.

Diarrhoea

Anti-diarrhoeal treatments such as loperamide are used for mild to moderate diarrhoea, along with increasing oral fluid intake, electrolyte replacement and dietary changes. Patients with severe symptoms (>7 stools per day over baseline) may need IV fluid and electrolyte replacement, antibiotics and a temporary dose-reduction or pause of myeloma treatment.

Bile acid malabsorption (BAM) is a condition that can develop in patients receiving lenalidomide and can typically happen a few months into treatment. Diagnosis is confirmed by a SeHCAT scan. Symptoms of BAM may improve with reduction of dietary fats, and/or treatment with colesevelam, a bile acid sequestrant. Referral to gastroenterology may be advised to exclude malignancy (particularly as lenalidomide can increase the risk of secondary cancer).

Constipation

Regular macrogol (e.g. Movicol®, Laxido®) or lactulose may be used for prevention of constipation.

Treatment includes stool softeners and bowel stimulants such as senna or codanthrusate, along with increasing oral fluids, fibre, and taking exercise as able. For more severe symptoms patients may need suppositories or an enema.

Nursing management points

Assessment and monitoring

- Assess patients regularly for GI disturbances when on treatment
- Assess the patient's ability to manage activities of daily living
- Record bowel function and maintain fluid balance as required

Prevention and treatment

- Be aware of the emetic side effects of different myeloma treatments and understand which anti-emetics drugs are used
- Explain the importance of taking prophylactic anti-emetics and laxatives
- Assess response to anti-emetic, laxative and anti-diarrhoeal treatments

Self-care strategies for patients

General measures

- Take gentle exercise to aid digestion and promote appetite
- Maintain good hydration
- Have regular bowel cancer screening when invited (if eligible)

Nausea and vomiting

- Avoid food aromas, and foods that are spicy, fatty and highly salty
- Cold foods may be more palatable than hot meals
- Take anti-emetics before meals
- Eat 'little and often'

Constipation

- Increase dietary fibre
- Have a regular, unhurried time to open bowels each day

Diarrhoea

- Increase oral fluid intake to compensate for fluid loss
- Avoid caffeinated, high sugar drinks and fruit juices
- Avoid high-fat, spicy, high-fibre foods, fruit juice and dairy products
- Keep the rectal area clean, use soft or moist toilet paper and a barrier cream to prevent soreness

Patient information key points

- Provide written information to help patients understand GI toxicity
- Explain how to recognise and report symptoms, and the importance of doing this when on myeloma treatment
- Educate on preventative measures to reduce the risk of side effects

References



A list of key references is available on Myeloma Academy:
academy.myeloma.org.uk/myeloma-nurse-guide-references



Appendix

Common Terminology Criteria for Adverse Events Grading Criteria for gastrointestinal effects

Adverse event	Grade 1 (mild)	Grade 2 (moderate)	Grade 3 (severe)
Nausea	Loss of appetite without alteration in eating habits	Oral intake decreased without significant weight loss, dehydration or malnutrition	Inadequate oral calorific or fluid intake; tube feeding, TPN, or hospitalisation indicated
Vomiting	Intervention not indicated	Outpatient IV hydration. Medical intervention indicated.	Tube feeding, TPN, or hospitalisation indicated
Diarrhoea	Increase of <4 stools per day over baseline; mild increase in ostomy output compared to baseline	Increase of 4–6 stools per day over baseline; moderate increase in ostomy output compared to baseline; limiting instrumental ADL	Increase of ≥7 stools per day over baseline; hospitalisation indicated; severe increase in ostomy output compared to baseline; limiting self-care ADL
Constipation	Occasional or intermittent symptoms; occasional use of stool softeners, laxatives; dietary modification, or enema	Persistent symptoms with regular use of laxatives or enemas; limiting instrumental ADL	Obstipation with manual evacuation indicated; limiting self-care ADL

ADL – activities of daily living

TPN – total parenteral nutrition



Myeloma★Academy

For further nurse guides and other educational resources on myeloma and related conditions:

academy.myeloma.org.uk

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