Tackling Gastrointestinal Intolerance in Malnourished Adults in the Community

A symptom-based consensus guide

Many patients in the community are malnourished either as a cause, or as a consequence of ill health. In this patient population, gastrointestinal symptoms are a common morbidity. Healthcare professionals (HCPs) need to determine the contributing factors, manage symptoms and at the same time ensure the patient's nutritional needs are being met.

A multidisciplinary group of HCPs came together in May 2014 with the aim of developing a practical consensus on the identification and management of the symptoms of gastrointestinal (GI) intolerance in malnourished adults in the community. This article provides an overview of some of the issues and the consensus discussions distilled as a practical guide.

The consensus group was chaired by **Kelly McCabe**, Lead Oncology Dietitian, London. The other members of the group were: **Emily Albon**, Specialist GI Dietitian, Devon; **Jordan Barnard**, Specialist Community Dietitian, Kent; **Pam O'Donoghue**, Oncology (Hepato-Pancreato-Biliary) Clinical Nurse Specialist, London; **Elizabeth Piggott**, Community Lead Dietitian, Manchester; **Dr Marion Sloan**, FRCGP, GP, Sheffield and Committee member of Primary Care Society for Gastroenterology (PCSG).

Introduction

Gastrointestinal (GI) intolerance is the term used to describe the symptoms of maldigestion and/or malabsorption of food (see **Figure 1**). When symptoms suggestive of GI intolerance occur, prompt management is essential to prevent dehydration, weight loss and exacerbation of malnutrition.

Effective symptom management improves patient quality of life and can help prevent avoidable hospital admissions and reduce the high economic burden already posed by malnutrition.[2] However, recognising the symptoms of GI intolerance, understanding their possible causes and deciding upon the best management strategy can be a challenge.

Kelly McCabe, Specialist Oncology Dietitian and Chair of the consensus group, said: *"GI intolerance affects a large and diverse group of people in the community. It can have a considerable impact on patient quality of life, yet is often under-recognised and under-diagnosed. There is a real need for practical guidance in this area."*

A recent survey of dietitians conducted amongst readers of Complete Nutrition revealed the following:[3]

- 58% consider that more than 10% of their adult patients experience symptoms of GI intolerance (28% estimate this figure to be more than 20% of patients)
- Only 17% of respondents said they could definitely identify **all** of the symptoms of GI intolerance and felt very confident in managing **all** of the symptoms
- 78% stated that there is a lack of guidance available for the HCP team dealing with GI intolerance in the community. (N=57)

In addition, GP prescribing data has shown that 8.5% of patients in the community prescribed an oral nutritional supplement (ONS) experience a GI symptom (vomiting, diarrhoea or nausea) in the 14 days *before* receiving a prescription (data from a longitudinal GP database).[4]

Commenting on these findings, **Kelly McCabe** said: *"The survey conducted through Complete Nutrition and the GP prescribing data highlight the need for further education and support around the identification of the symptoms of GI intolerance, and the best approach to symptom management. This consensus guide has been developed with input from an experienced group of HCPs and is designed to bring all of the information together in a concise format that is easy to use on a day to day basis."*

A symptom-based consensus guide

The core output from the consensus group is a practical guide (see **Consensus Guide** on pages following) devised to support **symptom identification, assessment and management**. A symptom-based approach is applicable across all patient groups.

The guide to assessing symptoms is designed to build a picture of the burden of GI intolerance, including the impact of symptoms on patients' activities of daily living and quality of life. It also seeks to identify the factors contributing to symptoms and to direct the HCP towards a potential management solution, promptly recognising any red flag symptoms that require immediate patient referral to secondary or specialist care.

Figure 1: Definitions of GI Intolerance, Malabsorption and Maldigestion[1]

GI intolerance: the appearance of symptoms of maldigestion and/or malabsorption
Malabsorption: impaired absorption of macro and/or micronutrients from the GI tract due to disease or physical abnormalities
Maldigestion: incomplete digestion of food due to diseases and conditions where there is a lack of, or impaired production of key digestive enzymes

Consensus guide: Practical guidance on the identification and management of symptoms of gastrointestinal (GI) intolerance in malnourished adults in the community

This guidance has been developed by a multidisciplinary group with an interest in GI intolerance: Kelly McCabe, Lead Oncology Dietitian, London (Chair); Emily Albon, Specialist GI Dietitian, Devon; Jordan Barnard, Specialist Community Dietitian, Kent; Pam O'Donoghue, Oncology (Hepato-Pancreato-Biliary) Clinical Nurse Specialist, London; Elizabeth Piggott, Community Lead Dietitian, Manchester; Dr Marion Sloan, FRCGP, GP, Sheffield and Committee member of Primary Care Society for Gastroenterology (PCSG).

1 Initial assessment

- What are the normal bowel habits for the patient?
- Have there been changes in bowel habit over the past 10–14 days?
- Is there any significant previous medical history that may predispose patient to GI intolerance? [e.g. irritable bowel syndrome (IBS), inflammatory bowel disease (IBD), pelvic radiation therapy]

2 What GI symptom(s) is the patient experiencing?

For all symptoms enquire:

- When do symptoms occur relative to eating / food intake?
- Are symptoms made worse or do they improve with eating?
- Frequency of symptoms (number of times per day, how long does symptom last, number of days per week?)

3

Diarrhoea

- How do the stools appear (colour / type / volume)?*
- Is there urgency?
- Is there pain?
- Is there blood or mucus?

YES to blood/mucus = **Red Flag**

Diarrhoea may be considered severe if >4 times a day / urgent and risk of dehydration / malnutrition / affecting activities of daily living (everyday / specific aspects / mental health)

Constipation

Questions as for diarrhoea, plus:

- Is there tearing?
- Is there gas?
- Is there incomplete evacuation?

Nausea / vomiting / reflux

- Determine appearance / frequency of vomiting
- Could nausea / vomiting / reflux have a non-food cause?
- Rule out constipation as a contributor to nausea
- Refer to physician for prescription of anti-emetic / antacid

Red Flag concerns: constant nausea; significant weight loss (≥10% loss of body weight in 3–6 months); blood (fresh or 'coffee ground' appearance) and pain associated with symptoms

Abdominal pain / cramping

- Where is the pain located?
- Is the pain associated with flatulence / bloating?
- Is the patient constipated?
- Is pain relieved by: defaecation? pain killers?
- How severe is the pain?

Blood or mucus

- Always a **Red Flag**

Steatorrhoea

- How do the stools appear? (pale yellow / grey in colour; frothy; floating or oily?)*
- Is there incontinence / leakage / urgency / incomplete evacuation?
- Does the patient feel weak / fatigued?

YES to any of the above: consider specialist referral. View steatorrhoea as a **Red Flag**

Other symptoms

Bloating, flatulence, incomplete evacuation

4 Assess symptom severity, using validated tools where appropriate

- Are symptoms compromising the patient's nutritional status / likely to result in hospitalisation?
- Are symptoms affecting daily activities / quality of life?
- When changes in bowel habit persist for > 3 weeks despite management attempts refer for GP / specialist consultation
- Refer **Red Flag** patients for specialist consultation

5 Oral Nutritional Supplements (ONS)

Is the patient at **HIGH RISK (2 or more symptoms) or LOW RISK** of GI intolerance?

If High Risk

- Consider an energy dense (1.5kcal/ml) peptide-based ONS for a minimum of 2-4 weeks (or until symptoms improve / resolve) then consider long term plan

If Low Risk

- Consider a whole protein ONS (+/– low volume)
- Review in 2–4 weeks and switch to peptide-based ONS if symptoms persist

6 For patients already taking a whole protein ONS

- Consider an energy dense (1.5kcal/ml) peptide-based ONS for a minimum of 2-4 weeks (or until symptoms improve / resolve) then consider long term plan

For all patients receiving ONS

- Give guidance on the frequency / dose / timing of ONS administration according to symptom(s) to be managed
- For all patients taking ONS for >2 months refer to a Dietitian in accordance with local care plans

* Determine stool appearance using a validated tool (for example Bristol Stool Chart http://www.gpnotebook.co.uk/simplepage.cfm?ID=x20100606160522260465 King's Stool Chart http://www.kcl.ac.uk/medicine/research/divisions/dns/projects/stoolchart/index.aspx)

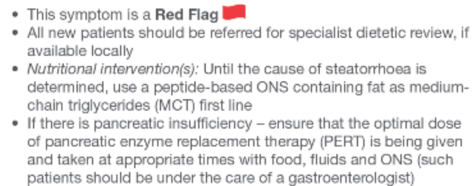
Further reading and resources:

- NICE (2006). NICE guidelines [CG32]: Nutrition support in adults: Oral nutrition support, enteral tube feeding and parenteral nutrition. Accessed online: www.nice.org.uk/Guidance/CG32 (29th July 2014).
- NICE (2008). NICE guidelines [CG61]: Irritable bowel syndrome in adults: Diagnosis and management of irritable bowel syndrome in primary care. Accessed online: www.nice.org.uk/guidance/CG61 (29th July 2014).
- Collins C, et al (2012).Managing Malabsorption and Poor Feed Tolerance in Adults: A practical guide. Accessed online: www.abbott nutrition.co.uk/media/24709/managing_malabsorption_and_poor_feed_tolerance_in_adults_a_practical_guide.pdf (29th July 2014).
- Thomas PD, et al (2013). Guidelines for the investigation of chronic diarrhoea. Gut; 52(Suppl 5): v1-15.
- The IBS Network symptom tracker. Accessed online: www.theibsnetwork.org (29th July 2014).
- GP Notebook. Bristol Stool Chart. Accessed online: www.gpnotebook.co.uk/simplepage.cfm?ID=x20100606160522260465 (29th July 2014).
- King's College London (2001). King's Stool Chart. Accessed online: www.kcl.ac.uk/medicine/research/divisions/dns/projects/stoolchart/KingsStoolChartENGLISH.pdf (29th July 2014).

Specific nutritional guidance for GI symptoms

Diarrhoea
- If the cause of diarrhoea is unknown: consider work-up for infectious cause
- Consider physician review for prescription of anti-diarrhoeal if severe
- *Nutritional intervention(s):* Low fibre diet if eating; rehydration (solutions under supervision); avoid artificial sweeteners which may exacerbate diarrhoea and bloating; consider probiotics according to current guidance

Steatorrhoea
- This symptom is a **Red Flag**



- All new patients should be referred for specialist dietetic review, if available locally
- *Nutritional intervention(s):* Until the cause of steatorrhoea is determined, use a peptide-based ONS containing fat as medium-chain triglycerides (MCT) first line
- If there is pancreatic insufficiency – ensure that the optimal dose of pancreatic enzyme replacement therapy (PERT) is being given and taken at appropriate times with food, fluids and ONS (such patients should be under the care of a gastroenterologist)

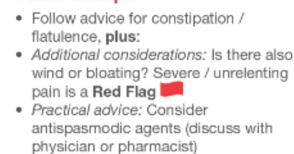
Nausea / vomiting
- *Nutritional intervention(s):* Small frequent meals; cold food; dry food; eat and drink separately; rehydrate; avoid cooking smells; consider ginger / gingerol
- Risk of dehydration is indicated by urine colour (dark); dry mouth; lack of skin turgor; dry eyes; thirst. If 10 waking hours since urine has been passed – contact A&E
- If vomiting escalates – contact A&E
- *Additional considerations:* Is the patient also constipated?

Bloating / flatulence / burping
- *Nutritional intervention(s):* Avoid gas producing foods (e.g. onions, beans, pulses, broccoli, cabbage, cauliflower, garlic); avoid polyols (e.g. xylitol / sorbitol in chewing gum); avoid drinking through a straw / speaking while eating; avoid fizzy drinks; avoid consumption of resistant starch. Do eat / drink peppermint containing foods; for wind and bloating include nonfermentable bulking agents (e.g. golden linseeds) in diet
- Consider referring patient to specialist dietitian for use of FODMAP plan if carbohydrate malabsorption / small bowel bacterial overgrowth is implicated
- *Additional considerations:* Is the patient also constipated?

Reflux
- *Nutritional intervention(s):* Avoid acidic foods such as citrus fruits and tomatoes, coffee, fizzy drinks, peppermint, caffeine, nicotine and alcohol; avoid eating late at night; avoid heavy and spicy foods; avoid ingesting large volumes of food / fluids
- *Practical advice:* Elevate head of bed; manage with anti-reflux medicines (discuss with physician or pharmacist)

Constipation
- Follow advice for bloating, **plus:**
- *Nutritional intervention(s):* Increase fluid and soluble and insoluble fibre intake
- *Practical advice:* Consider use of drug treatments for constipation / laxatives (discuss with physician or pharmacist); encourage increased physical activity

Pain / cramps
- Follow advice for constipation / flatulence, **plus:**
- *Additional considerations:* Is there also wind or bloating? Severe / unrelenting pain is a **Red Flag**



- *Practical advice:* Consider antispasmodic agents (discuss with physician or pharmacist)

Consider whether persistent GI symptoms may be due to:

Clinical factors
- Manage any underlying conditions contributing to GI symptoms
- Those at high risk of GI intolerance in the community may include:
  - ✓ Any patients needing nutritional support
  - ✓ The elderly
  - ✓ Cancer patients pre, post or during treatment
  - ✓ Patients with upper / lower GI disease
  - ✓ Patients who have undergone recent GI surgery
  - ✓ IBD and IBS patients
  - ✓ Colostomy / ileostomy / jejunostomy patients
  - ✓ Coeliac patients
  - ✓ Patients on long-term antibiotics, laxatives or Proton Pump Inhibitor (PPI) therapy
  - ✓ Patients on polypharmacy
  - ✓ Any patients with chronic conditions (e.g. COPD, heart failure, diabetes, gut neuropathies, cystic fibrosis)
  - ✓ Lactose intolerant patients

Medicines
- Medicines which may exacerbate or contribute to GI intolerance include the following main drug classes:
  - ✓ Antibiotics
  - ✓ Laxatives
  - ✓ Proton Pump Inhibitors (PPIs)
  - ✓ Calcium, iron and magnesium tablets
  - ✓ Others: prokinetics; anti-diarrhoeal medications; rehydration salts; anti-emetics; lactose- / sorbitol-containing medications; opioid analgesics; antiretroviral agents; pancreatic enzymes; chemotherapy / targeted therapies; antispasmodics; medications for IBS; statins

Consult with physician / pharmacist on modifications to drug treatments and regimens that may help alleviate GI symptoms

All management strategies for malnourished patients should be developed by a multidisciplinary team and considered in accordance with local practice guidelines for screening, referrals and management, and in line with existing NICE guidance regarding nutritional support and the management of associated conditions.
Readers are also referred to Collins *et al* (Managing malabsorption and poor feed tolerance in adults: a practical guide. July 2012. https://www.abbottnutrition.co.uk/media/24709/managing_malabsorption_and_poor_feed_tolerance_in_adults_a_practical_guide.pdf Accessed 16th July 2014) for practical guidance on the management of malabsorption and poor feed tolerance in adults.

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Conclusion

This symptom-based guide has been developed to provide support in the community setting for all members of the multi-disciplinary team when dealing with patients displaying symptoms of GI intolerance. It seeks to provide nutritional and practical advice and also to highlight red flag symptoms which require further specialist referral. In all cases, local practice protocols as well as national recommendations and guidelines for the management of specific patient groups should be consulted, and patients referred for further discussion with the dietitian or other healthcare professional as appropriate.

Acknowledgement

This article has been supported by an educational grant from Abbott Nutrition. The views expressed are those of the expert group, and not necessarily those of Abbott Nutrition.

References: **1.** WGO, (2007). Accessed online: www.worldgastroenterology.org/assets/downloads/en/pdf/guidelines/13_malabsorption_en.pdf (17th July 2013). **2.** Multi-professional consensus panel. Managing Adult Malnutrition in the Community (2012). Accessed online: http://malnutritionpathway.co.uk/downloads/Managing_ Malnutrition.pdf (17th July 2014). **3.** Data on file. Abbott Laboratories Ltd., 2014 (Complete Nutrition survey). **4.** Data on file. Abbott Laboratories Ltd., 2013 (Cegedim data).

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