

A PRACTICAL GUIDE TO IDENTIFYING AND MANAGING GI SYMPTOMS IN CHILDREN WHO REQUIRE ORAL NUTRITIONAL SUPPLEMENTS

This guidance has been developed by a multidisciplinary group with a specialist interest in paediatric gastrointestinal issues:

Dr Susan Hill, Consultant Paediatric Gastroenterologist, Great Ormond Street Hospital, London; **Jenny Livingstone**, Specialist Paediatric Gastroenterology, Hepatology and Nutrition Dietitian, The Royal Hospital for Sick Children, Edinburgh; **Elizabeth Loring**, Community Paediatric Dietitian, Central and North West London NHS Foundation Trust; **Dr Nick Mann**, Consultant Paediatrician, The Berkshire Independent Hospital, Reading; **Sara Patience**, Registered Health Visitor and Registered Nutritionist, Surrey; **Rita Shergill-Bonner**, Principal Dietitian, Great Ormond Street Hospital, London; **Dr Richard Stevens**, GP, Oxford and Committee Member Primary Care Society for Gastroenterology

INTRODUCTION

Gastrointestinal (GI) symptoms are common in childhood and can have a significant physical and emotional impact on children,¹ as well as causing worry and anxiety for their families.² Data have shown that 7.3% of children requiring oral nutritional supplements (ONS) experience a GI symptom in the two weeks prior to receiving a prescription for ONS³, which may then impact on the success of the nutritional intervention.

This practical guide has been developed by an expert multi-disciplinary panel to aid the early identification and management of GI symptoms in children who require ONS.

1 RECOGNISE THE SYMPTOMS

FOLLOWING A DETAILED CLINICAL AND DIETARY HISTORY, CHECK FOR GI SYMPTOMS BEFORE INITIATING ONS

- Abdominal pain / discomfort
- Diarrhoea
- Constipation
- Perianal excoriation
- Reflux / gastro oesophageal reflux disease (GORD)
- Retching
- Nausea / vomiting

RESOLVE THE SYMPTOMS WHERE POSSIBLE

- Identify and address the underlying cause of the symptoms
- Consider medications – could the type, dose or timing of the medication be the cause of the symptoms?

See section on 'identifying those at risk of GI symptoms' for further information

2 ASSESS THE IMPACT

USE VALIDATED TOOLS WHERE POSSIBLE AND CONSIDER:

What is 'normal' for this child?

- Are there any changes from 'normal'?
- What are the possible explanations for this?

What is the nature of the symptoms?

- How long has the child been experiencing symptom(s)?
- Is there an identifiable trend or trigger associated with the symptoms?
- Do the symptoms get worse or improve with eating?

Impact on quality of life (QoL)

- Is the child experiencing any pain or discomfort?
- Is the GI symptom affecting daily functioning or QoL of the child (e.g. has it prevented them from attending school / doing their usual activities?)
- What is the child's view of the GI symptom and how it makes them feel (consider use of a rating scale)

IDENTIFY 'RED FLAG' SYMPTOMS

- Blood / mucus in stools
- Poor linear growth
- Blood / bile in vomit
- Severe and persistent nausea, vomiting or diarrhoea
- Persistent, disabling abdominal pain
- Nocturnal stooling
- Steatorrhoea
- Significant weight loss not responding to intervention

Refer for specialist input

3 TAILOR NUTRITIONAL SUPPORT

Based on symptom assessment, clinical judgement and local protocols, following dietetic advice

CONSIDER STANDARD ONS

- If symptoms are within the range of normal for a given child and are not impacting on QoL

If symptoms persist, consider peptide-based ONS

If symptoms improve, consider standard ONS

CONSIDER PEPTIDE-BASED ONS

- If symptoms are not normal for a given child and are impacting negatively on QoL
- If the child's medical condition or medication makes them more susceptible to GI symptoms (see section on 'identifying those at risk of GI symptoms' for further information)

If ongoing concerns, consider medical review and other feed components e.g. medium chain triglycerides (MCT) and feed osmolality

4 MONITOR AND REVIEW

- Monitor symptoms, review goals and treatment depending on age and condition. Review by a dietitian and / or medical professional should ideally take place four times / year, or in accordance with local guidelines and protocols
 - At each review, consider whether weight gain is adequate and whether ONS should be increased, reduced or stopped
- Check compliance and offer appropriate advice (see section on 'managing compliance of ONS')
- Use baseline values to demonstrate change over time in both symptoms and growth (use accurate growth monitoring / weight gain)
- If symptoms persist, know when to escalate for further investigations and interventions
- Maintain communication with all members of the multidisciplinary team
- Manage expectations with parents and carers

1. Data on file. Abbott Laboratories Ltd., 2012 (PaediaSure Peptide case studies). 2. Hommel KA *et al.* *J Clin Psychol Med Settings* 2010;17(2):159–166. 3. Data on file. Abbott Laboratories Ltd., 2013 (Cegedim Data)

IDENTIFYING THOSE AT RISK OF GI SYMPTOMS

Clinical history. Taking a comprehensive clinical and dietary history is one of the most important steps in recognising and managing GI symptoms. Gain feedback from the parent / carer and the child where possible to build up an accurate picture at every stage of the consultation process

- Review trends and changes to height and weight at each appointment
- Consider family history, school attendance and performance and general impact on quality of life

CONDITIONS ASSOCIATED WITH POTENTIAL GI SYMPTOMS

- Childhood cancers
- Chronic diseases (e.g. cardiac or respiratory disease, chronic kidney disease)
- Coeliac disease*
- Cystic fibrosis
- Food allergies*
- Inflammatory bowel disease (Crohn's or colitis)
- Malabsorption (e.g. short bowel)
- Neuro-degenerative disorders (e.g. cerebral palsy)
- Orthopaedic / spinal disease or injury
- Post-GI surgery
- Psychological distress

**Appropriate dietary management of coeliac disease and food allergies should alleviate GI symptoms*

MEDICATIONS WHICH MAY EXACERBATE GI SYMPTOMS

- Antibiotics
- Anti-diarrhoeal medications
- Chemotherapy
- Iron tablets
- Lactose-containing medications
- Laxatives
- Magnesium tablets
- Sorbitol-containing medications

MEDICATIONS WHICH MAY BE USED TO MANAGE GI SYMPTOMS[‡]

- Antacids
- Anti-diarrhoeal medications
- Anti-emetics
- Antispasmodics
- H2 antagonists
- Laxatives
- Oral rehydration solutions
- Probiotics
- Prokinetic agents
- Proton pump inhibitors

*[‡]Check current issue of **BNF for Children** for latest information and correct dosages*

MANAGING COMPLIANCE OF ONS

- Educate parents and the child about the importance of ONS and encourage them to communicate this to all those involved in the child's daily life (e.g. teachers, nursery staff and carers)
- Allow children to choose the ONS that they prefer so they feel more involved in the process
- Consider ways to support compliance by providing parents / carers with ideas of how to use ONS, for example:
 - Chilling or freezing ONS as ice cubes or ice lollies
 - Adding ONS to sauces or desserts
 - Making smoothies or milkshakes using ONS
 - Adding flavours to vanilla ONS
 - Decanting ONS into a sports bottle or other type of alternative container to help normalise
 - Providing parents / carers with recipe books and ideas

USEFUL RESOURCES

Bristol Stool Chart <https://www.bladderandbowelfoundation.org/resources/bristol-stool-form-scale/>
STAMP <http://www.stampscreeningtool.org/>