

# Management of Small Intestinal Bacterial Overgrowth (SIBO)

**All patients should be managed via the NHS Tayside GI Team**

Small intestinal bacterial overgrowth (SIBO) is the presence of excessive numbers of bacteria in the small bowel causing gastrointestinal symptoms. These bacteria are usually coliforms, which are typically found in the colon and include predominantly Gram-negative aerobic and anaerobic species that ferment carbohydrates producing gas<sup>1</sup>.

**Symptoms** of SIBO include: diarrhoea, abdominal pain, flatulence, bloating, weight loss and nausea.

Conditions commonly associated with SIBO	
Category	Specific condition
Mechanical causes	Small bowel tumour, volvulus, intussusceptions, postsurgical causes
Systemic disease	Diabetes, scleroderma, amyloidosis
Motility	IBS, pseudo-obstruction, visceral myopathies, mitochondrial diseases
Medications	Opiates, potent antisecretory agents (e.g. PPIs)
Malabsorptive conditions	Pancreatic insufficiency, cirrhosis, other malabsorptive conditions
Immune related	Human immunodeficiency virus, combined variable immunodeficiency, IgA deficiency
Other	Age (> elderly), small bowel diverticulosis

**A number of other conditions can present with similar symptoms to SIBO. These conditions, which include Inflammatory Bowel Disease, Irritable Bowel Syndrome, Coeliac Disease and Giardia\* should be considered and appropriately excluded prior to considering SIBO.**

**\*to test for Giardia**

- **ICE request – Syndromic PCR for GI pathogens**
- **formed faeces samples will not be tested by Microbiology laboratory unless clinical details on request state**
  - **‘test to rule out Giardia as per NHST SIBO guidelines’**
  - **If this is not stated on samples then the lab will store the sample and a report issued on ICE for requester to contact the lab if testing is required**

## Diagnosis/Investigations

- Diagnostic investigations for SIBO are not currently available
- Diagnosis is therefore based on symptoms, history, risk factors and exclusion of alternate conditions (see red box above)
- All antimicrobial therapy for SIBO is empirical as there is no validated sensitivity method

## Management

- Identification and treatment of underlying causes where possible
- Review current medications
  - PPIs - reduce dose or stop if clinically appropriate
- Consider antimicrobial treatment as per information below
  - Recommendations are for non pregnant adults and assume normal renal and hepatic function
- **Initial Antimicrobial treatment**
  - Recommendations to initiate antimicrobial treatment should be by secondary care GI specialist but can be prescribed via primary care
  - Discuss risk of antimicrobial treatment with patient
  - The decision to treat with antimicrobials should be weighed against potential risks of antimicrobial resistance and adverse reactions including *C. difficile* infection.
  - **NO** symptomatic response within 1 month of 1<sup>st</sup> line therapy then give course of 2<sup>nd</sup> line therapy
  - **NO** improvement in symptoms after 1<sup>st</sup> and 2<sup>nd</sup> line treatment then stop SIBO treatment and review diagnosis

---

1<sup>st</sup> line: Metronidazole 400mg three times daily for 10 days

2<sup>nd</sup> line: Rifaximin 550mg three times daily for 10 days

---

- **Relapse Antimicrobial treatment**
  - Relapse after previous symptomatic response:
    - Repeat course of antibiotic the patient previously responded to
  - If 2 or more courses of antibiotics are needed within 6 months and further relapse  
→ refer to GI service

Written by:

K Hill (Antimicrobial Pharmacist), Dr M Miller (GI Consultant), Dr B Mooka (ID Consultant)

Approved by: GI team/AMG

Date: May 2022

Review date: May 2025

## References:

1. ACG Clinical Guideline: Small Intestinal Bacterial Overgrowth. Am J Gastroenterol 2020;115:165-178