# IBS – BEYOND FODMAP AND AMITRIPTYLINE

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# Disclosures

- I love seeing patients with IBS
- This talk contains:
  - a lot of my own opinion
  - ‘off label’ use of investigations and medicines
  - showcasing of our local data
- This talk isn’t very ‘green prescription’

# Irritable Bowel Syndrome

- "A gastrointestinal syndrome characterized by chronic abdominal pain and altered bowel habits in the absence of any organic cause"
- A confusing functional problem best referred to the dietician
- An annoying distraction from real pathology in outpatients clinic

# Rome IV Criteria for Diagnosing IBS:[c]

- Recurrent abdominal pain, on average, at least 1 day/week in the last 3 months, associated with two or more of the following criteria:
- Related to defecation
- Associated with a change in frequency of stool
- Associated with a change in form (appearance) of stool.
- [c]Criteria fulfilled for the last 3 months with symptom onset at least 6 months before diagnosis.

# Typical management strategy: DHB clinic

- Assess
  - History, exam
  - Coeliac ABs, Calprotectin
- Diagnose as ‘functional problem’
- Reassure
- Discharge to dietician for FODMAP diet
  - Seen 3 – 5 months later

# Typical management strategy: Private clinic

- Assess
  - History, exam
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- Diagnose as ‘functional problem’
- Reassure
- Discharge to dietician for FODMAP diet
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Colonoscopy
+/- Breath Test

# How to Develop an Intuition for IBS

- Don’t just label them ‘functional’ (or mad!)
  - Divide by subtype, underlying mechanism
- Bring them back for early follow-up
- Try different things
- Learn!

# Low FODMAP diet

- FODMAPS
  - Fermentable Oligo-, Di- and Mono-saccharides, and Polyols.
  - Basically foods containing Fructose, Lactose, and other sugars that may cause bloating
  - Short-chain carbohydrates that are poorly absorbed and readily fermented by bacteria
- Does it work?
  - RCT evidence for effectiveness
- But…..
  - Long, complex, often completely unnecessary!
  - Some patients end up restricted for ever
  - Look for an easier option first eg low fibre

# IBS Symptoms

- Abdominal pain
  - Pre/post defecation
  - Post-prandial
- Chronic constipation
- Chronic diarrhoea
- Alternating constipation/diarrhoea
- Incomplete evacuation
- Urgency
- Passage of mucus
- Bloating
- Nausea

**Too many variations for one common cause or management plan !**

# IBS Subtypes

- Constipation-predominant
- Diarrhoea-predominant
- Alternating Constipation/Diarrhoea
- Plus
  - Bloating

- Subtypes guide initial management plan

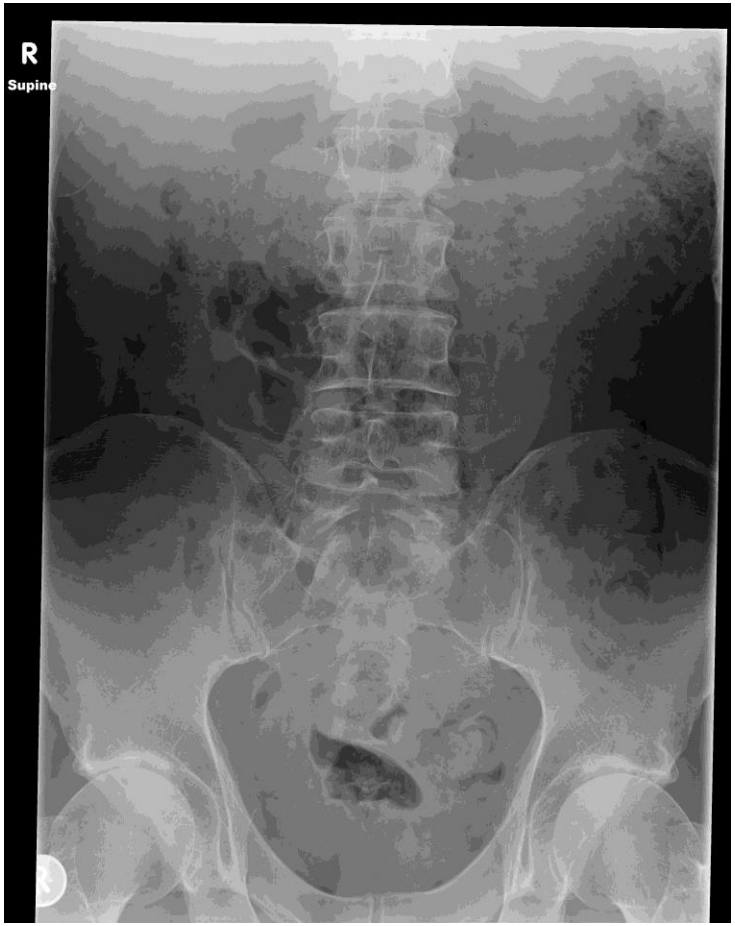
- **Try to determine the underlying mechanism**
  - **What is driving the symptoms?**

# Initial Assessment

- Which subtype?
  - Is bloating present?
  - Screen for obstructed defecation
- Dietary history
  - Fibre content
  - Excess fruit, alcohol
  - Lactose intolerance
  - Sorbitol, fizzy drinks, gum
- Any alarm symptoms?
  - PR bleeding, weight loss, nocturnal symptoms, new incontinence
  - Family Hx – coeliac, cancer, IBD
- Medication history
- Stool spec
  - M,C&S
  - C. dif
  - Calprotectin
- Thyroid function, Calcium, Coeliac antibodies

# The plain abdominal x-ray

- All subtypes types can be **constipation-driven**
- Perform AXR for any that don't report constipation
- View it yourself!
  - Many radiologists are blind to poo



# Bowel prep can be therapeutic

- A window of opportunity
- Take note of whether there is an improvement, and how long until the previous symptoms return.
- Did the symptoms improved for a while, or the bowels stopped moving for a while?
    - Suggests constipation component
- Did the diarrhoea return the next day?
    - Suggests chronic diarrhoea rather than functional

- Ask them to pay attention, write it in their phone

# IBS Management depends on subtype

- **Constipation-Predominant**
  - High fibre +/- laxatives if just constipated
  - If visceral pain continues
    - Antispasmodics
    - Nortriptyline

- **Constipation-Predominant + Bloating**
  - **Low fibre**, limit fruit (kiwfruit ok), + laxatives
  - Same for visceral pain

  - *Are the symptoms constipation-driven?*

- Reassurance on the safety of regular laxatives is important
  - “lazy bowel” disproven since 2003

1. J Clin Gastroenterol 2003 May-Jun;36(5):386-9

# IBS Management depends on subtype

- **Alternating Constipation/Diarrhoea**
  - This is a constipation-driven problem
  - Patients think they have a diarrhoea problem
  - Laxatives will prevent diarrhoea
  - Often require convincing with AXR
    - Timing important
  - May require low fibre or FODMAPs (especially if bloating)

- **Diarrhoea-Predominant**
  - Still do AXR
  - Trial low fibre, limit fruit

  - Diarrhoea-predominant IBS is very rare!
    - **Often have chronic diarrhoea rather than IBS**
    - Worth investigation to determine the underlying mechanism

# Chronic diarrhoea/IBS-D?

| Diagnosis | Formal investigations |
|---|---|
| Coeliac disease | Coeliac antibodies, DQ2/8, Duodenal biopsies |
| IBD | Calprotectin, Colonoscopy, MRI/Capsule |
| Divertics, Polyps, Cancer | Colonoscopy |
| Microscopic colitis | Colonoscopy + biopsies |
| Bile salt malabsorption | Trial of colestipol, SeHCAT scan |
| Pancreatic insufficiency | Faecal elastase, Trial of Creon, Secretin MRI |
| Small bowel bacterial overgrowth | H2 breath test, Trial of antibiotics |

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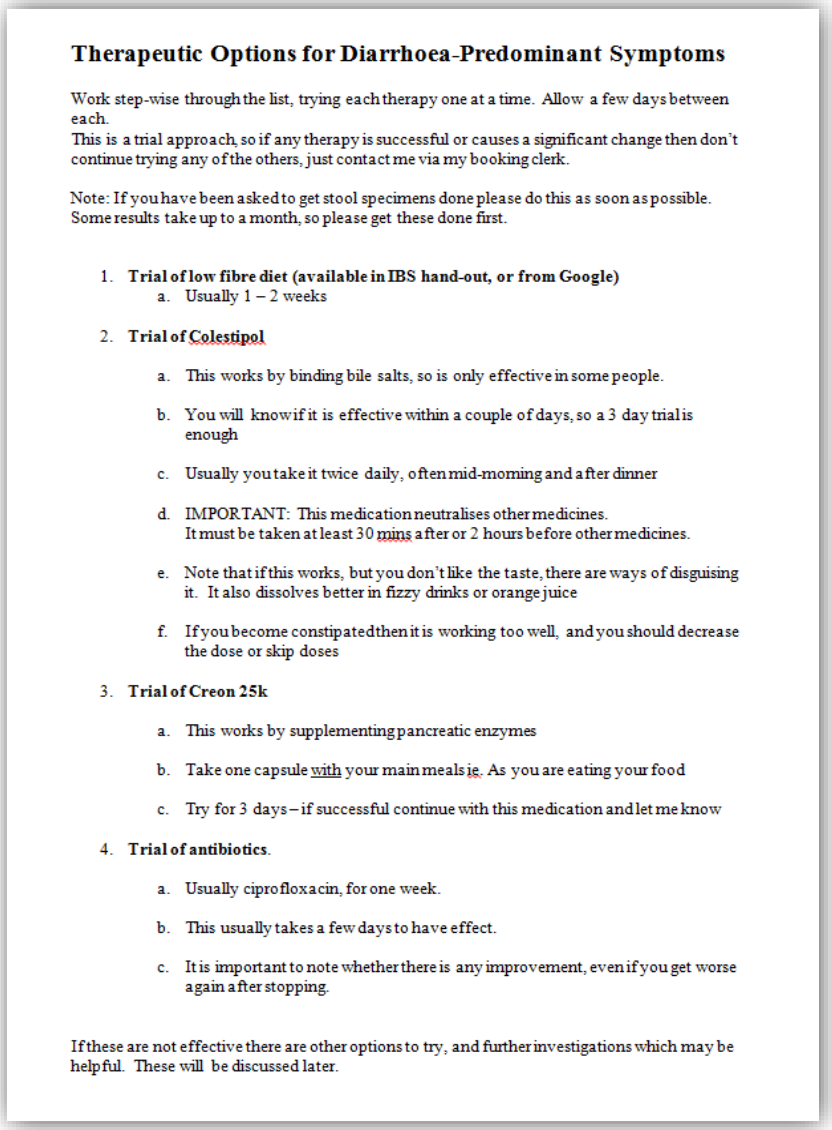
# Algorithm for IBS-D/Chronic diarrhoea

1. Clues in the history?
2. Consider AXR
3. Stool specs + Bloods
4. Consider dietary causes (trial of low fibre, <3 piece fruit)
5. Request colonoscopy +/- Gastroscopy (disaccs)
6. Trial of colestipol, creon, cipro
7. Review with results (phone?)
8. Await colonoscopy +/- gastroscopy (if still required)



**Therapeutic Options for Diarrhoea-Predominant Symptoms**

Work step-wise through the list, trying each therapy one at a time. Allow a few days between each.
This is a trial approach, so if any therapy is successful or causes a significant change then don't continue trying any of the others, just contact me via my booking clerk.

Note: If you have been asked to get stool specimens done please do this as soon as possible. Some results take up to a month, so please get these done first.

1. **Trial of low fibre diet (available in IBS hand-out, or from Google)**
   a. Usually 1 – 2 weeks
2. **Trial of Colestipol**
   a. This works by binding bile salts, so is only effective in some people.
   b. You will know if it is effective within a couple of days, so a 3 day trial is enough
   c. Usually you take it twice daily, often mid-morning and after dinner
   d. IMPORTANT: This medication neutralises other medicines. It must be taken at least 30 mins after or 2 hours before other medicines.
   e. Note that if this works, but you don't like the taste, there are ways of disguising it. It also dissolves better in fizzy drinks or orange juice
   f. If you become constipated then it is working too well, and you should decrease the dose or skip doses
3. **Trial of Creon 25k**
   a. This works by supplementing pancreatic enzymes
   b. Take one capsule with your main meals ie. As you are eating your food
   c. Try for 3 days – if successful continue with this medication and let me know
4. **Trial of antibiotics.**
   a. Usually ciprofloxacin, for one week.
   b. This usually takes a few days to have effect.
   c. It is important to note whether there is any improvement, even if you get worse again after stopping.

If these are not effective there are other options to try, and further investigations which may be helpful. These will be discussed later.

# A successful novel algorithm to manage undifferentiated chronic diarrhoea with empirical therapy.

Perry J, Schauer C, van Rijnsoever M.

North Shore Hospital Gastroenterology Department, Waitemata District Health Board, 124 Shakespeare Rd, Takapuna, Auckland 0620.

## Introduction

Chronic diarrhoea may effect up to 5% of the population. Optimal strategies for the evaluation and management are not well established. Some diagnostic tests may be difficult, not readily available or inconclusive, therefore trials of empiric therapy may help to overcome some of these barriers.

## Methods

In patients left with unexplained diarrhoea following endoscopic evaluation and a trial of a low fibre diet, an empirical diagnostic and treatment algorithm was implemented. This involved sequential trials of the following, with detailed instructions. If any options was effective the patient was advised to have earlier review.

1. Bile salt sequestrants (Colestipol/Colestyramine) to treat possible bile salt malabsorption (BSM) (3 day trial)
2. Pancreatic enzyme supplementation (Pancreatin, Creon) to treat possible pancreatic insufficiency (PI) (3 day trial)
3. Antibiotics (7 days Ciprofloxacin) to treat possible small intestine bacterial overgrowth (SIBO).

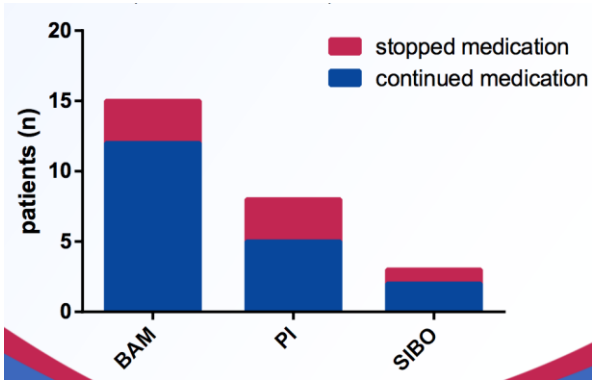
We reviewed outcomes from a single clinician who developed this algorithm for patients with chronic unexplained diarrhoea. Cases were retrieved from both public and private settings via an electronic and manual search. Outcomes were gauged from patient reported response, and furthermore by whether the patient had subsequently been dispensed >3 prescriptions of the medication. Patients were excluded if the diarrhoea followed biliary, ileal or right colonic surgery as this would usually be bile-salt driven.

## Results

A total of 28 patients were included with a median age of 52 years (range 25-80) of which 58% were female. Clinical response lead to 56%, 30% and 7% of patient's being diagnosed with BSM, PI or SIBO respectively. Of these 25 patients, 19 (76%) remained on long term medications for their conditions. Median time to resolution and discharge was 3 clinic visits. Stool tests did not predict response to Creon, with 70% of responders having a faecal elastase >200µg/g.

# Results using Empirical Algorithm

- Included 28 patients without cause seen on standard investigations
- Excluded patients with obvious cause
  - Diarrhoea following biliary surgery, or surgery affecting ileocaecal area
- Median age of 52 (range 25-80), 58% were female.




- Clinical response lead to diagnosis of
  - Bile salt malabsorption 56% ,
  - Pancreatic insufficiency 30%
  - SIBO 7%
- Of these 25 patients, 19 (76%) remained on long term medications for their conditions.

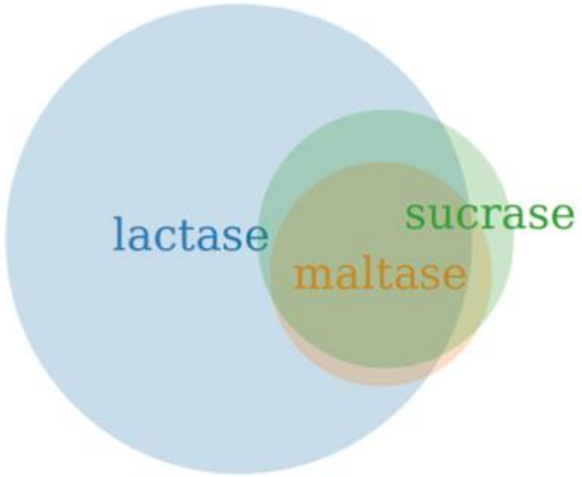
- Median time to resolution and discharge was 3 clinic visits (range 1-15).
- Stool tests did not predict response to creon
  - 70% of creon responders having a faecal elastase >200µg/g.

- Conclusions:
  - Doing an empirical therapeutic trial is very effective in reaching a rapid diagnosis
  - Bile salt malabsorption is a very common cause of chronic diarrhoea/IBS-D
  - Pancreatic insufficiency may be much more common than the literature suggests
  - Time for a prospective trail…

Perry, Schauer, van Rijnsoever NZSG 2018

# Are disaccharidase levels worth checking?

- Brush border enzymes (Lactase, Sucrase, Maltase)
- Simple to check if doing a gastroscopy
  - Extra two biopsies in D2



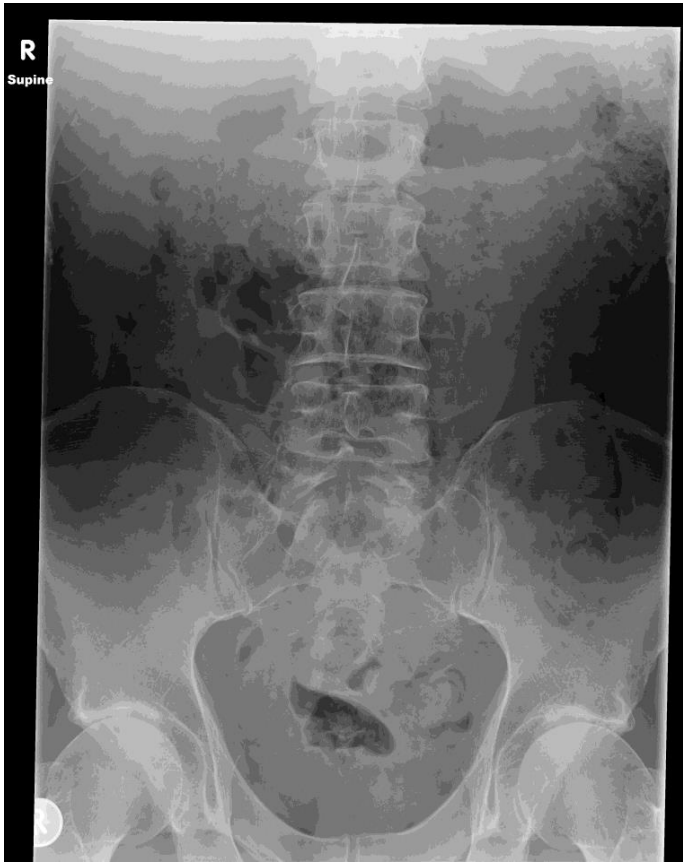

- High pick-up rate in our DHB
- 282 patients
  - 42% lactase, 9.6% maltase, 12.8% sucrase
- Useful to pick up ‘occult’ lactase deficiency
  - Glass of milk challenge, Lactase capsules

- Pan-depressed disaccharidase patients
  - Most likely a real entity, following an enteric infection?
  - Present with bloating, diarrhoea, brain fog
  - Profound response to a low-disaccharidase diet

Schauer, van Rijnsoever, Perry NZSG 2018

# What about breath tests?

- Freely available in the private sector
  - Gastroenterologists
  - Dieticians
  - Naturopath clinics
- Used to:
  - direct the dietician for FODMAP exclusions
  - diagnose lactose intolerance
  - diagnose SIBO
- Time consuming
- There's a big catch…
  - 50 - 70 % false positive rate if significantly constipated – do the AXR!




Neurogastroenterol Motil. 2014 Dec;26(12):1754-60.

# Exercise and IBS

- Physically active patients have a higher bowel motion frequency and shorter transit time

- 14 RCTs on Exercise and IBS
  - 6 involving Yoga,
  - 4 physical activity,
  - 2 Tai Ji,
  - 1 mountaineering
  - 1 Baduanjin qugong activity
- Positive outcome in half
- High risk of bias in most
  - randomisation, blinding, outcome measurements

- Need further data

Zhou et al. Neurogastroenterol Motil 2018

# In Summary

- Engage your brain before referring to the dietician
  - Look for the underlying mechanism!
- Try fibre before FODMAPS
- Try and resolve mechanism before antispasmodics/tricyclics
- Abdominal x-rays are very helpful, as are observations post bowel prep

| Management by Subtype | |
|---|---|
| Constipation | Fibre, laxatives |
| Constipation with Bloating | Low fibre, laxatives |
| Alternating C/D | Low fibre, laxatives, FODMAPS |
| Diarrhoea predominant | Investigate for a cause!<br>Consider empirical trials |

- Check Disaccharidase levels
  - Pan-depression may be very significant
- Exercise is great