Evaluation and Management of Chronic Constipation

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Burden

- Most common digestive complaint in general population
  - Pooled global prevalence 14%
    - Higher in women (OR 2.22), older adults (OR 1.41), lower socioeconomic class (OR 1.32), and IBS (OR 7.98)
    - Substantial overlap with other GI diseases and mood disorders
      - Power et al: No association between chronic constipation and CRC
    - Prevalence US 2-30% (12-19%)
      - Higgins et al: 63 million fulfilled Rome II criteria
      - Age and sex adjusted prevalence normal transit constipation 19%, rectal evacuation disorders 11%
  - Substantial economic cost
    - In US, 4 million ambulatory case visits 1990s inc to 8 million 2000s
    - Singh et al 2007: 78,854 Medi-Cal patients, 15 month period
    - Direct cost per patient per
      - Visit $39
      - Procedures and laboratory $183
      - Medications (OTC and prescription) $5
      - Admission to hospital $2993
      - Total cost $246

Suares et al. Am J Gastroenterol. 2011
Higgins et al. Am J Gastroenterol. 2004
Singh et al. Clin Gastro and Hepatol.2007
Power et al. Am J Gastroenterol. 2013
Definition

- Acute <1 week; Chronic >4 weeks (>3 months)
- Rome IV criteria (for at least 3 months, with symptom onset at least 6 months prior to diagnosis)

1. Must include **two or more** of the following >25% of defecations:
   - Straining
   - Lumpy or hard stools (Bristol Stool Scale Form 1-2)
   - Sensation of incomplete evacuation
   - Sensation of anorectal obstruction/blockage
   - Manual maneuvers to facilitate defecation (digital evacuation, support of the pelvic floor)
   - Fewer than three spontaneous bowel movements per week

2. Loose stools are rarely present without the use of laxatives

3. There are insufficient criteria for IBS
Main causes – Primary Chronic Constipation

- Normal transit constipation (functional constipation)
- Rectal evacuation disorders (outlet delay disorders)
- Slow transit constipation (colonic inertia, chronic colonic pseudo-obstruction)
Normal transit constipation (NTC)

- Normal transit about 20-72 hours
- Normal ano-rectal function
- Most common type
- Considerable overlap with IBS
- Significantly higher scores for psychological distress

Wald et al. Gastroenterology. 1989
Rectal evacuation disorders

- Characterized by impaired rectal evacuation from inadequate rectal propulsive forces and/or increased resistance to evacuation
- Lack of coordination between straining and relaxation pelvic floor/anal sphincter
- 2nd most common type of chronic constipation
- Normal passage of radio-opaque markers in the proximal colon but stagnate in the rectum
- DDx:
  - Dyssynergic defecation or pelvic floor dyssynergia**
  - Anismus (high anal resting pressure)
  - Anatomic abnormalities (rectocele, descending perineum syndrome, rectal prolapse, etc.)
  - Hirschprung disease
  - Fecal impaction
  - Megarectum
Dyssynergic defecation (pelvic floor dyssynergia)

• Acquired, behavioural disorder of defecation

• Results from faulty toilet habits, painful defecation, obstetric or back injury, dysfunction of the gut–brain axis, psychosocial issues

• Unable to coordinate abdominal, rectal, anal and pelvic floor muscles during attempted defecation

• Manifests as paradoxical anal contraction, inadequate anal relaxation or impaired rectal or abdominal propulsive force
  • 60% patients have rectal hyposensitivity
  • 60% patients have slow transit constipation
Slow transit constipation (STC)

- Resting colonic motility similar to normal controls
- Little to no high-amplitude propagating contractions after meals or with bisadocyl challenge
  - Reduced colonoic propulsive activity
  - Uncoordinated motor activity in the distal colon
- Appears to be dysfunction in the extrinsic parasympathetic or enteric neural control
- Often afflicts young women
- Colonic inertia
  - Delayed passage of radio-opaque markers through the proximal colon
  - No evidence of defecatory disorder
- Chronic megacolon
  - Chronically dilated colon
  - Reduced colonic compliance
  - Can be seen in genglioneuromatosis of the colon (MEN 2B)
Secondary causes

**Neurologic and motility disorders**
- Amyloidosis
- Diabetes
- Hirschsprung disease
- Hypothyroidism
- Multiple sclerosis
- Parkinson disease
- Spinal cord injury
- Spinal or ganglionic tumors
- Stroke

**Medications**
- Anticholinergics
- Anticonvulsants
- Antidepressants
- Antipsychotics
- Antispasmodics
- Calcium channel blockers
- Opioids

**Other causes**
- Chagas disease
- Conversion disorder
- Decreased fluid intake
- Hypercalcemia
- Hyperparathyroidism
- Low-fiber diet
- Mechanical obstruction

**Diseases in which treatment can cause constipation**
- Bipolar disorder
- Chronic pain
- Depression
- Parkinson disease
- Schizophrenia
Initial evaluation

• **History**
  • Pattern constipation, onset, comorbidities, associated symptoms, medications (opiates, CCB, anti-cholinergic)
  • Psychosocial
  • Alarm features
  • Tenesmus, sensation of incomplete evacuation, urgency
  • Digital maneuvers (splinting), prolonged and excessive straining
  • Other motility issues (dysphagia, early satiety)

• **Rectal exam**
  • Sn 75-93%, Sp 59-87% for dyssynergia
  • Key findings
    • With straining – paradoxic contraction of external anal sphincter, lack of perineal descent (puborectalis contraction)
    • Abnormal abdominal push effort
    • Pain to palpation posterior rectal wall (puborectalis muscle tenderness)
    • Rectal prolapse
Ano-rectal angle in Dyssynergic defecation
Management algorithm

**Constipation**
- Thorough medical history, physical examination and digital rectal examination
  - Alarm features present
    - Investigate organic causes of constipation (including colorectal cancer); colonoscopy should be considered
    - Treat appropriately
  - Alarm features absent
    - Identification of potential secondary causes of constipation
    - Optimize management of secondary causes of constipation
    - Lifestyle modifications (such as increased fibre or fluid intake or physical activity)
    - Constipation persists
  - Anorectal structure and function tests
    - Abnormal
      - Rectal evacuation disorder
        - Biofeedback therapy
      - Slow-transit constipation
        - Prosecretory agents
        - Prokinetic agents
        - Abnormal
        - Surgery
    - Normal
      - Colonic transit test
        - Functional constipation
        - Prosecretory agents
Lifestyle Modifications

- Increase dietary fiber (NTC), liquid consumption, physical activity
- Recommendation based on epidemiological studies
- Inconsistent results
  - Fluid intake:
    - no high-quality evidence or randomized controlled trials
    - No apparent benefit to ingest dietary fiber supplements with extra water
  - Dietary fiber
    - Based on systematic reviews
    - At least 25-30g/day
    - Soluble fiber (pectins, gums, mucilages and storage polysaccharides present in oat bran, barley, nuts, seeds, beans, lentils, peas, some fruits and vegetables and psyllium fiber supplements)
    - Avoid insoluble fiber (cellulose, hemicelluloses and lignin present in wheat bran, vegetables and whole grains), specially in IBS-C
Nonpharmacologic management of chronic constipation

Increase physical activity (most beneficial in early morning)

Toilet training. Instruct patients to:
Not ignore urges to defecate
Use correct posture, ie, “brace-pump” technique: sit on the toilet and lean forward, with knees higher than hips and with feet supported on a step to straighten the anorectal angle
Do deep-relaxation techniques while defecating
Avoid straining when passing stool
Not stay on the toilet for more than 5–10 minutes

Dietary changes
Drink a hot caffeinated beverage after waking up
Eat breakfast within 1 hour of waking up
Increase fluid intake to 1.5–2 L daily
Increase dietary fiber to 25–30 g daily; do this slowly to avoid abdominal cramps and bloating
<table>
<thead>
<tr>
<th>Drug</th>
<th>Mechanism of action/dosing</th>
<th>Effectiveness</th>
<th>Adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk laxatives</strong></td>
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</tr>
<tr>
<td>Soluble fiber (psyllium, methylcellulose, calcium polycarbophil, partially hydrolyzed guar gum, wheat dextrin) and insoluble fiber (bran, flaxseed, rye)</td>
<td>Increases stool water content to soften stool; Decrease transit time colon; Increased stool mass might stimulate peristalsis; 1 tsp up to 3 times a day</td>
<td>Soluble fiber is more effective than insoluble fiber in NTC; Good effect in mild to moderate constipation; Psyllium and ispaghula husk most studied (strong rec, very low qual)</td>
<td>Bloating, abdominal distention; Early satiety, might worsen dyspepsia; Avoid when dyssynergia present; * less bloating with Citrucel; Don’t use insoluble fiber</td>
</tr>
<tr>
<td><strong>Osmotic laxatives</strong></td>
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<tr>
<td>Macrogols (Polyethylene glycol 3350)</td>
<td>Generation of an osmotic gradient in gut lumen; Promotes movement of water into lumen, speed transit</td>
<td>Effective for intermittent and chronic constipation (Stool Fz + consistency and straining –strong rec; high qual); NNT 5</td>
<td>Abdominal distention, incontinence; Safe chronic use, well tolerated; Pregnancy C</td>
</tr>
<tr>
<td>Non-absorb carbs (Lactulose)</td>
<td>Luminal water softens stool and stimulates secondary peristalsis; PEG: 8-32oz daily or twice a day; Lactulose: 15–30mL daily or bid</td>
<td>Less effective; safe in pregnancy</td>
<td>Gas, bloating, cramping; DD</td>
</tr>
<tr>
<td>Magnesium salts</td>
<td></td>
<td>Poor evidence</td>
<td>Electrolyte disturbances in CKD</td>
</tr>
<tr>
<td>Sorbitol</td>
<td></td>
<td>Onset 24-48h</td>
<td>Abdominal cramps, flatulence</td>
</tr>
<tr>
<td><strong>Stimulant laxatives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthraquinones (cascara sagrada and senna)</td>
<td>Stimulation of intestinal motility; Colonic wall irritant; Stimulation sensory nerves colon; Inhibition water absorption; Prostaglandin release by acting on the enteric nervous system</td>
<td>Effective for mild intermittent constipation; no large, RCT performed; onset 8-12h</td>
<td>Diarrhea and abdominal pain common; incontinence; Bisacodyl: hyperkalemia; Lack long data; Senna: (unproven) degeneration of Meissner’s and Auerbach’s plexus; melanosis coli</td>
</tr>
<tr>
<td>Diphenylmethanes (bisacodyl, sodium picosulfate)</td>
<td></td>
<td>Effective for chronic constipation (strong rec, mod qual); onset 8-12h</td>
<td></td>
</tr>
<tr>
<td>Misoprostol, castor oil</td>
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### Surfactant laxatives (stool softeners)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Mechanism of action</th>
<th>Effectiveness</th>
<th>Adverse events</th>
</tr>
</thead>
</table>
| ducosate sodium, ducosate calcium | • Anionic detergents (dioctyl sodium sulphosuccinate) lower the surface tension of stool and allows water to penetrate stool  
• 100mg twice daily                                                                 | • Docusate is less effective than soluble fiber; mild, transient constipation  
• Use in combination with stimulant laxative  
• 12-72 onset action                                                                 | • Safe  
• Pregnancy category A                                                                                                                          |

### Enemas

<table>
<thead>
<tr>
<th>Enemas</th>
<th>Mechanism of action</th>
<th>Effectiveness</th>
<th>Adverse events</th>
</tr>
</thead>
</table>
| Soapsuds, Tap water enema, phosphate enema, Mineral oil retention enema, glycerin | • Evacuation induced by distended colon; mechanical lavage  
• Stool softened and lubricated                                                                                                           | • Time to onset 5-15 minutes  
• Stimulant laxatives: use 30 minutes after meals                                                                                      | • Accumulated damage to rectal mucosa  
• Mechanical trauma  
• Fleets: hyperphosphatemia, hypocalcemia, acute phosphate nephropathy                                                                   |

### Other

<table>
<thead>
<tr>
<th>Drug</th>
<th>Mechanism of action</th>
<th>Effectiveness</th>
<th>Adverse events</th>
</tr>
</thead>
</table>
| Prunes                | • 50g (around 6 prunes BID)  
• Better than psyllium in  
  • Improve spontaneous bowel movements  
  • Improve stool consistency                                                                                                                     |                                                                                                                                                  |                                                                                                          |
| Hemp seed extract     | • 7.5 g twice a day better than placebo at increasing weekly spontaneous bowel movements, improving straining and decrease need for rescue therapy; more side effects than placebo (13% bloating, gas, diarrhea) |                                                                                                                                                  |                                                                                                          |
Management algorithm
Evaluation after failure of empiric therapy

- Up to 50% of patients with dyssynergic defecation have STC
- Coexistent slow colonic transit does not alter the management of defecatory disorders
- Many will normalize after successful treatment of the dyssynergic defecation
- Pelvic floor retraining is superior to laxatives for defecatory disorders
- Assessment of colonic transit is recommended only after excluding a defecatory disorder
- Labs: CBC; AGA 2013 metabolic work up not recommended (TSH, Calcium)
Anorectal structure and function tests

- **Anorectal manometry**
  - physiological tests that assesses:
    - Sphincter tone in the resting and contracted state
    - Recto-anal reflexes
    - Rectal sensation
    - Pressure changes during attempted defecation

![Diagram of anorectal manometry](image-url)
Anorectal structure and function tests

- **Balloon expulsion test**
  - Screening method for rectal evacuation disorders
  - expulsion time of >1 minute is abnormal
  - does not distinguish between functional and mechanical or anatomical causes
  - Normal test does not exclude defecatory disorder

- **Defecography**
  - Perform is ARM and BET are inconclusive
  - Contrast (barium) vs functional (MRI)
  - Provide information about
    - Function (dyssynergic defecation)
    - Anatomy (anal stenosis, enterocele, rectal intussusception, rectal prolapse and rectocele)

Lee et al. J Neurogastroenterol Motil. 2014
Management algorithm

Constipation

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    - Optimize management of secondary causes of constipation
    - Lifestyle modifications (such as increased fibre or fluid intake or physical activity)
      -Constipation persists

- Abnormal
  - Rectal evacuation disorder
    - Biofeedback therapy
  - Slow-transit constipation
    - Prosecretory agents
    - Prokinetic agents
    - Rescue therapy
      - Glycerine
      - Stimulant laxatives
      - Suppository
      - Enema
    - Surgical therapy
      - Surgery

- Normal
  - Colonic transit test
    - Functional constipation
    - Prosecretory agents
At the conclusion of the initial clinical evaluation of patients with constipation, it should be possible to tentatively classify patients into one of:

- **Defecatory disorders** (anismus/dyssynergia [failure of relaxation] or descending perineal syndrome and other flaccid disorders)
- **NTC** with normal colonic transit and defecation; some patients in this group have symptoms of IBS (eg, abdominal pain, bloating, and incomplete defecation)
- **STC** when pelvic floor function is normal and there is evidence of slow transit
- **Combination** of defecatory disorders and STC;
Management defecatory disorders

• Managed by biofeedback-aided pelvic floor retraining to improve abdominal/pelvic floor coordination
• Use visual or auditory feedback of anorectal and pelvic floor muscle activity; sensory retraining
• Patients learn to appropriately increase intraabdominal pressure and relax the pelvic floor muscles during defecation

70% improvement compared to 8% STC
65% normalized colonic transit
More effective than laxatives

Lee et al. Journal of NeuroGastro and Mot. 2013
Chronic constipation and difficult defecation ± laxative nonresponder

Therapeutic trial

Anorectal manometry (ARM), balloon expulsion test (BET), wireless motility capsule (WMC) or radio-opaque marker test (ROM)

MR and/or barium defecography if manometry results inconsistent

<table>
<thead>
<tr>
<th>Normal anorectal and colonic physiological test</th>
<th>Abnormal WMC and/or ROM + normal ARM + normal BET</th>
<th>Abnormal ARM ± BET ± WMC and/or ROM ± defecography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapeutic trial, laxatives, secretagogues</td>
<td>Slow-transit constipation</td>
<td>Impaired rectal sensation</td>
</tr>
<tr>
<td>No improvement</td>
<td>Laxatives, secretagogues, prokinetics</td>
<td>Sensory neuropathy</td>
</tr>
<tr>
<td></td>
<td>No improvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colonic manometry to identify colonic neuropathy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gastric scintigraphy or WMC to determine normal upper gut motility and transit</td>
<td></td>
</tr>
<tr>
<td>Psychological evaluation and therapy</td>
<td>Surgery</td>
<td>Biofeedback</td>
</tr>
<tr>
<td></td>
<td>Biofeedback + sensory training</td>
<td></td>
</tr>
</tbody>
</table>
Tests of colonic transit

- **Radiopaque marker test**
  - 95% of normal subjects pass more than 80% of markers within 120 hours
  - **Hinton method:**
    - One capsule containing 20–24 radiopaque markers given on day 1
    - Abdominal radiograph on day 5
    - Slow colonic transit is identified if >5 (20%) ingested markers are retained on day 5
  - Simple, low cost, reproducible, widespread availability (?)
  - Radiation exposure, additional hospital visit
Wireless motility capsule test
- enables the detection of
  - Segmental and whole-gut transit time
  - By detecting changes in intraluminal pH
  - Good correlation with radiopaque marker tests
  - Helpful in patients with overlapping symptoms in the UGI tract

Tests of colonic transit
- Intraluminal pH increases
  - Increases ~3 units from the stomach to the duodenum
  - Decreases ~1 unit from the ileum to the caecum
  - Delayed GTT: > 5 hours
  - Delayed SBTT: > 6 hours
  - Delayed CTT: > 59 hours
Pharmacological management of chronic constipation

<table>
<thead>
<tr>
<th>Drug</th>
<th>Mechanism of action</th>
<th>Indications</th>
<th>Effectiveness</th>
<th>Adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intestinal Secretagogues</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Chloride channel activators</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| **PgE derivative Lubiprostone ($180/m)** | • Stimulate intestinal Cl and fluid secretion by activating CIC-2 channels (also CFTR)  
• Increases intestinal Na and H20 and promotes intestinal transit  
• Accelerated small bowel and colonic transit and facilitate ease of defecation | **CIC**  
**IBS-C**  
**OIC** | **CIC: 24 μg twice daily**  
**IBS-C: 8 μg twice daily**  
**Take with food**  
**Strong recommendation, high qual; NNT 4** | **Pregnancy class C; avoid during breast feeding**  
**Dose-dependent nausea (8-30%)**  
**Diarrhea, headaches**  
**Can start once daily** |
| Guanylate cyclase-c agonist |                                                                                                                                                                                                                     |               |                                                                              |                                                                               |
| **Linaclotide ($518)**      | • Activation of guanylate cyclase c receptor (STA) generating cGMP  
• Increases intestinal secretion of Cl and HCO3 by activating CFTR  
• Increases intestinal Na and H20 and promotes intestinal transit  
• Accelerated small bowel and colonic transit and facilitate ease of defecation  
• Decreases the firing rate of the visceral afferent pain fibers decreasing visceral pain | **CIC**  
**IBS-C** | **CIC: 145 μg/day**  
**IBS-C: 290 μg/day**  
**Take 30 to 60 minutes before breakfast**  
**Strong rec, high qual’ NNT 6** | **Diarrhea (leads to discontinuation in 4% pts with Linaclotide)**  
**Minimal oral bioavail and extra-intestinal SE**  
**No arrhythmic effects** |
| **Plecanatide ($500)**      |                                                                                                                                                                                                                     | **CIC**  
**IBS-C** | **NNT 6**                                                                 |                                                                               |
| Serotonin 5-HT4 receptor agonists |                                                                                                                                                                                                                     | **CIC** | **1-2mg daily**  
**Comparative effect to PEG** | **Diarrhea, headache**  
**no clinically relevant adverse cardiac effects** |
Other pharmacological management of chronic constipation

- Serotonin 5-HT4 receptor agonists
  - Naronapride, Velusetrag
- Bile Acid Transporter Inhibitors
  - Elboxibat
- Bile-acid analogues
  - chenodeoxycholic acid
- NHE3 sodium transporter inhibitors
  - Tenapanor

Surgical management of slow transit constipation

• Functional/anatomic tests and psychosocial analysis to be done prior to surgery
  • Avoid surgery in
    • Dyssynergic defectation*
    • IBS-C

• Rule out upper GI motility disorders

• Most recommendations weak, based low quality evidence

• Failure rates as high as 100% in segmental colon resection

• Options
  • Repair rectocele/intussusception (avoid transrectal stapled repair - STARR)
  • Sacral nerve stimulation
    • Intractable constipation
    • Low quality studies, experimental
  • Ileostomy
    • Uncorrectable pelvic floor dysfunction
  • Cecostomy with anterograde enemas
  • Total colectomy with ileo-rectal anastomosis
    • 50-100% improvement
    • Strong recommendation, weak evidence
    • Surgical complications as high as 30%
Opioid induced constipation

- 40%-90% of patients who use opioids have constipation and other GI adverse effects
- Opioid receptors $\mu$, $\kappa$, and $\delta$
  - delay gastrointestinal transit
  - stimulate non-propulsive motor activity, intestinal segmentation, and increased sphincter tone
  - increase fluid absorption by prolonging contract time for absorption to occur
  - decrease secretion of electrolytes and water into the intestinal lumen

**Table 3. Available Opioid Antagonists**

<table>
<thead>
<tr>
<th>Drug</th>
<th>$\mu$</th>
<th>$\kappa$</th>
<th>$\delta$</th>
<th>Permeable to Blood-Brain Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naloxone</td>
<td>+++</td>
<td>+</td>
<td>+</td>
<td>Yes</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>+++</td>
<td>+</td>
<td>+</td>
<td>Yes</td>
</tr>
<tr>
<td>Methylnaltrexone</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>No</td>
</tr>
<tr>
<td>Alvimopan</td>
<td>+++</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>Naloxegol</td>
<td>+++</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
</tbody>
</table>

- **Naloxone**
  - Luthra et al: Naloxone ranked best drug and safest
  - Combination opiate/naloxone

- **PAMORAs**:
  - Naldemedine: Approved for OIC in adult patients with chronic noncancer pain
  - Methylnaltrexone bromide (8-12 mg sc or 450mg oral): Approved for OIC in patients taking opioids for chronic noncancer pain
  - Naloxegol (25mg, oral): approved for use in patients with OIC with chronic noncancer pain
  - Alvimopan is indicated only to shorten the duration of postoperative ileus; not FDA approved
Recommendations of the AGA Clinical Guidelines for the Medical Management of Opioid-Induced Constipation

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Strength of recommendation</th>
<th>Quality of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Traditional laxatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In patients with OIC, the AGA recommends use of laxatives as first-line agents</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td>2. PAMORAs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In patients with laxative refractory OIC, the AGA recommends naloxegol over no treatment</td>
<td>Strong</td>
<td>High</td>
</tr>
<tr>
<td>b. In patients with laxative refractory OIC, the AGA recommends naloxegol over no treatment</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td>c. In patients with laxative refractory OIC, the AGA suggests methylnaltrexone over no treatment</td>
<td>Conditional</td>
<td>Low</td>
</tr>
<tr>
<td>3. Intestinal secretagogues</td>
<td>No recommendation</td>
<td>Evidence gap</td>
</tr>
<tr>
<td>a. In patients with OIC, the AGA makes no recommendation for the use of lubiprostone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Selective 5-HT agonists</td>
<td>No recommendation</td>
<td>Evidence gap</td>
</tr>
<tr>
<td>a. In patients with OIC, the AGA makes no recommendation for the use of prucalopride</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Take home points

- Initial limited evaluation, mostly based on history and exam findings
- 1st line therapy includes fiber, osmotic laxatives (PEG), stimulant laxatives (Bisadocyl)
- Poor evidence senna, MOM, docusate
- Limit metabolic work up
- 1st step after failure empiric treatment is ARM + BET, followed by colonic transit studies
- All secretagogues have good evidence, limitations price
- Biofeedback best treatment for pelvic floor dysfunction
- Surgery reserved for refractory STC with no rectal evacuation disorders