








Guidelines for the management of Constipation in Children

Indication for use: Children aged 12 months -18 years presenting with symptoms of constipation

Based on NICE guidelines (updated 2017)
<http://www.nice.org.uk/guidance/CG99> and
PIP partner's in Paediatrics 2016-2018 Constipation
Guidelines
(<http://www.partnersinpaediatrics.org>)

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Bristol Stool Chart

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|--------|---|---|
| Type 1 |  | Separate hard lumps, like nuts (hard to pass) |
| Type 2 |  | Sausage-shaped but lumpy |
| Type 3 |  | Like a sausage but with cracks on its surface |
| Type 4 |  | Like a sausage or snake, smooth and soft |
| Type 5 |  | Soft blobs with clear cut edges (passed easily) |
| Type 6 |  | Fluffy pieces with ragged edges, mushy stool |
| Type 7 |  | Watery, no solid pieces. ENTIRELY LIQUID |

Recognition; Key Concepts

- Fewer than 3 stools per week
- Stool type 1-3 on chart (unless overflow)
- Hard and large, difficult to flush

History

- Frequency, volume and type of stool using Bristol stool chart
- Overflow and soiling in older children
- Distress and /or straining in younger children
- Holding behaviour (crossing legs, back arching or tiptoeing) in young children
- Time of passing meconium after birth 1) RED FLAG Sptom if more than 48 hours

- Bleeding per rectum
- Any trigger factors i.e diet change, potty training, starting school

Key points on physical examination

- Weight and Height
- Abdominal examination to look for distension
- Lower limbs neuromuscular examination in long standing cases
- Spinal examination (? Signs of spina bifida)
- Inspection of the perianal area for appearance, position of anus or evidence of **Streptococcal infection (marked demarcated erythema)**

Red Flags:

- Early onset of constipation in the first few weeks of life
- Failure to thrive/ growth failure
- **Neuropathic bowel**
- Lack of lumbosacral curve
- Pilonidal dimple or tuft of hair
- Sacral agenesis
- Flat buttocks
- Decreased lower extremity tone or strength
- Absence or delay in relaxation phase of lower extremity deep tendon reflexes
- Urinary symptoms
- **Hirschprung's**
- Delayed passage of meconium in the first 24 hours of life
- Abdominal distension
- Tight empty rectum in the presence of palpable faecal mass
- Anteriorly displaced anus
- Anal stenosis

Differential

- Idiopathic functional constipation in 90-95%
- Organic Constipation suspected in the presence of red flags
- Constipation secondary to anal anatomic malformations
- Neurogenic Constipation (spinal cord anomalies, neurofibromatosis, tethered cord, lower limb examination required!)
- Constipation secondary to endocrine/ metabolic issues (Hypothyroidism, hypercalcaemia, hypokalaemia, CF)
- Coeliac Disease

Investigations

- Most Children DO **NOT** require investigations

- Careful history and physical examination will determine appropriate investigations
- In cases of refractory or if faltering growth:
 - TFT
 - Coeliac Panel
 - If delayed passage of meconium: SWEAT TEST

X-ray has little or no value! (lower spine X-ray if encoparesis and no abdominal or rectal mass)

Medication

1. A Macrogol laxative (Movicol), faecal impaction as described below
2. Use stimulant laxative senna or sodium picosulphate if no result or not tolerated
3. Review all children with/after one week (by GP or Oak ward by Consultant if this not possible)

1) Disimpaction dosage

| Age (yr) | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
|----------|--|-------|-------|-------|-------|-------|-------|
| | Number of paediatric plain sachet's daily divided into 2-3 doses | | | | | | |
| 1-5 | 2 | 4 | 4 | 6 | 6 | 8 | 8 |
| 5-11 | 4 | 6 | 8 | 10 | 12 | 12 | 12 |
| | Number of adult Movicol preparations for children aged >12 | | | | | | |
| 12-18 | 4 | 6 | 8 | 8 | 8 | 8 | 8 |

Ongoing maintenance chronic constipation 1-3 sachets daily in divided doses

2) Osmotic laxatives

Lactulose

| | |
|-------------------------------|--|
| Child 1 month-1 year | 2.5ml twice daily, adjusted to response |
| Child 1-5 years | 2.5-10ml twice daily, adjusted to response |
| Child/young person 5-18 years | 5-20ml twice daily adjusted to response |

3) Stimulant laxatives

Sodium picosulphate

| | | |
|------------------|------------------------|----------------|
| Elixir (5mg/5ml) | Child 1 month-4 years | 2.5-10mg PO OD |
| | Child 4 years-18 years | 2.5-20mg PO OD |

Bisacodyl

| | | |
|------------------------|-------------------------------|--------------|
| By mouth | Child 4-18 years | 5-20mg PO OD |
| Per rectum suppository | Child/young person 2-18 years | 5-10mg OD PR |

Senna

| | | |
|--------------------------------|------------------|---------------------|
| Senna Syrup (7.5mg/5ml) | 1 month-4 years | 2.5ml-10ml PO OD |
| | Child 4-18 years | 2.5-20ml PO OD |
| Senna tablet (1 tablet =7.5mg) | Child 2-4 years | 0.5-2 tablets PO OD |
| | Child 4-6 years | 0.5-4 tablets PO OD |
| | Child 6-18 | 1-4 tablets PO OD |

Sodium Docusate

| | | |
|--------------------------|------------------------|------------------|
| Paediatric oral solution | Child 6 months-2 years | 12.5mg TDS PO |
| (12.5mg/5ml) | Child 2-12 years | 12.5-25mg TDS PO |

| | | |
|--|-------------|------------------------------------|
| | Child 12-18 | Up to 500mg a day in divided doses |
|--|-------------|------------------------------------|

Kleanprep- This requires hospital admission (has been known to cause hypoglycaemia)
1 Sachet is reconstituted until 1L of water

| | | | |
|--|--|---|--|
| Klean-Prep- suggested rates until bowel is emptied or max volume | 5-10 kg weight 1st 1/2 hour: 50 ml/hour, then for 1 hour 100 ml/hour, if tolerated 125 ml/hour | 20-30 kg weight 1st 1/2 hour: 200 ml/hour, then for 1 hour 300 ml/hour, if tolerated 500 ml/hour | Max over 4 hours³ 100ml/kg or 3000ml |
| | 10-20 kg weight 1st 1/2 hour: 100 ml/hour, then for 1 hour 200 ml/hour, if tolerated 250 ml/hour | >30 kg weight 1st 1/2 hour: 200 ml/hour, then for 1 hour 400 ml/hour, if tolerated 600 ml/hour | |

Rectal disimpaction ONLY if oral fails and parents/child consents and it is not deemed too traumatic for the child

- Sodium citrate microenemas
- Small volume citrate enemas are considered preferable to large volume phosphate enemas
- Phosphate enemas (only if oral medications and sodium citrate enemas failed) Use only under specialist advice and consider sedation if the child is distressed

If all above fails refer to surgical colleagues ? manual evacuation under GA

Maintenance

- Continue maintenance therapy for 4-6 months then gradually reduce the dosage
- Half the disimpaction dose of Movicol is a useful guide for the initial maintenance dose

Indications for Seeking further support from a Paediatric Gastroenterologist

- Organic cause of constipation is suspected
- Disimpaction orally/rectally unsuccessful
- Soiling/abdominal pain continues despite treatment
- Children aged < 1 year with faecal impaction or not responding to maintenance therapy

Constipation management (adapted from partners in Paediatrics and NICE CG99)

