Sheffield Children's NHS
NHS Foundation Trust

Guidelines for the Management of Constipation and Soiling

Reference: 1068
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Purpose

Purpose of the guideline is to provide information to medical and surgical teams to help manage acute and chronic constipation and when to refer to specialist continence services.

Intended Audience

Medical and surgical team who deal with children with constipation. Specialist continence nurses who provide continence service in the trust.

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1. Introduction

Constipation is common in childhood. It is prevalent in around 5–30% of children, depending on the criteria used for diagnosis. Symptoms become chronic in more than one third of patients and constipation is a common reason for referral to secondary care. Morbidity may be under-reported as people may not seek advice because they are embarrassed. The exact cause of constipation is not fully understood but factors that may contribute include: pain, fever, dehydration, dietary and fluid intake, psychological issues, toilet training, medicines and familial history of constipation. Constipation is referred to as idiopathic if it cannot be explained by anatomical or physiological abnormalities.

Many people don't recognise the signs and symptoms of constipation and few relate the presence of soiling to constipation. The signs and symptoms of childhood idiopathic constipation include: infrequent bowel activity, foul smelling wind and stools, excessive flatulence, irregular stool texture, passing occasional enormous stools or frequent small pellets, withholding or straining to stop passage of stools, soiling or overflow, abdominal pain, distension or discomfort, poor appetite, lack of energy, unhappy, angry or irritable mood and general malaise.

Painful defecation is an important factor in constipation but it is not always recognised; withholding behaviors to prevent passage of painful stools are often confused with straining to pass stools. Families may delay seeking help for fear of a negative response from healthcare professionals. It has been suggested that some healthcare professionals underestimate the impact of constipation on the child or young person and their family. This may contribute to the poor clinical outcomes often seen in children and young people with constipation. Soiling is debilitating but rarely life threatening, so it might be expected to have little impact on healthcare provision. But many children and young people experience social, psychological and educational consequences that require prolonged support. Some children and young people with physical disabilities, such as cerebral palsy, are more prone to idiopathic constipation as a result of impaired mobility. Children and young people with Down's syndrome and autism are also more prone to the condition. It is important that assessment and ongoing management for these children and young people happen in the same way as is recommended for all children and young people.

Without early diagnosis and treatment, an acute episode of constipation can lead to anal fissure and become chronic. By the time the child or young person is seen they may be in a vicious cycle. Children and young people and their families are often given conflicting advice and practice is inconsistent, making treatment potentially less

effective and frustrating for all concerned. Early identification of constipation and effective treatment can improve outcomes for children and young people. This guideline provides strategies based on the best available evidence to support early identification, positive diagnosis and timely, effective management.

Implementation of this guideline will provide a consistent, coordinated approach and will improve outcomes for children and young people.

2. Intended Audience

As above

3. Guideline Content

A. ORGANIC CAUSES OF CONSTIPATION

The majority of constipation is idiopathic but other causes should always be considered. In many toddlers the problem arises from "stool holding" possibly as a result of previously painful defecation.

Possible Causes Are:

Dietary: Low fluid intake/dehydration, low bulk/fibre intake & excessive milk intake.

Drugs: Opiates, antihistamines, antidepressants, lead toxicity, oxybutynin, anti-epileptics.

Cow Milk Protein Intolerance (or less commonly, other protein gut-related allergic dysmotility of the colon)**:** Can present with diarrhoea or constipation.

Coeliac Disease:

Hirschsprungs: NB: History of failure to pass meconium in first 48 hrs and abdominal distension. The majority of children have symptoms in the first one month of life.

Structural defect: e.g. ectopic anus, stricture.

Perianal disease: Fissures, Group A Streptococcal infection.

Spinal cord defects: Especially if associated with urinary incontinence.

Neuromuscular disorders: e.g. SMA, cerebral palsy.

Metabolic and endocrine disorders: Hypothyroidism, hypercalcaemia (uncommon causes).

Psychosocial: Coercive potty training, fear / dislike of public toilets, sexual / other abuse.

Developmental / learning difficulties: May be associated with generalised delay or communication difficulties such as autism, ADHD.

B. ASSESSMENT

Careful history and examination will identify the problem in the majority of children

See tables 1 and 2 for features to diagnose constipation and "red flag" symptoms and signs.

History:

- General history including family history, diet and meal routines, fluid intake, drugs (laxatives and other), weight loss, nausea & vomiting. Constipation may cause a child's behaviour and concentration to deteriorate. Anorexia is common. Some children describe headaches. Many of these resolve with adequate treatment.
- Developmental history.
- Social / School – toilet conditions, access to toilets and fluids etc.
- Family responses to soiling, family circumstances. potty training, toilet routine

Examination: Complete examination including inspection of anus but not rectal examination, examination of spine and lower limb neurology.

Table 1: Key components of history taking to diagnose constipation

Key components	**Potential findings in a child younger than 1 year**	**Potential findings in a child older than 1 year**
Stool patterns	Fewer than 3 complete stools per week Hard large stool "Rabbit droppings"- type 1 (Bristol Stool Form Chart)	Fewer than 3 complete stools per week Overflow soiling- stool passed without sensation. Usually very loose, very smelly but can be dry and flaky or thick and sticky Rabbit droppings Infrequent large stools that can block the toilet
Symptoms associated with defaecation	Distress on stooling Bleeding associated with hard stool Straining	Poor appetite that improves with passage of large stool Colicky abdominal pain Evidence of " stool holding" – posturing typically straight legged, tiptoed, back arching Straining Anal pain
History	Previous episode/s of constipation Previous or current anal fissure	Previous episode/s of constipation

		Previous or current anal fissure Painful bowel movements and bleeding associated with hard stool Feeling of incomplete emptying

Table 2: Red flag symptoms and signs that may indicate an organic cause of constipation

Key Components	Red flag findings	Possible disorder
Timing of onset	Reported from birth or first few weeks	Hirschsprungs Anorectal anomaly
Passage of meconium	Failure to pass/ delay (>48 hrs after birth in term baby)	
Stool patterns	Ribbon Stools	
Growth	Failure to thrive	Malabsorption : Coeliac disease Food intolerance
Problems with gait Developmental delay	Neurological symptoms/ signs Gluteal flattening Talipes Spinal abnormalities	Spinal cord abnormality Other neurological conditions
Abdomen	Gross distension with vomiting	Malabsorption Obstruction etc…
Anal inspection	Patulous anus Bruising	Consider safeguarding referral

Investigation Where organic causes are suspected do appropriate investigation e.g. Antiendomysial antibodies or IgA TTG, sweat test, TSH, calcium etc. Rectal biopsy:
Consider CMP-free dietary trial for 2 – 4 weeks if cow's milk protein intolerance is suspected.
NICE recommends that the following should **not be used** to diagnose idiopathic constipation as a thorough history and examination is usually adequate.
They may be useful in exceptional circumstances, usually under the guidance of specialist continence teams:

– AXR
– Gut Transit time studies

– Abdominal ultrasound

B. MANAGEMENT

If an underlying cause is suspected, investigate as necessary.

Otherwise follow the algorithm D. Early and adequate treatment is essential.

Education and advice: There are many misconceptions about constipation and soiling. It is essential that family and child understand the pathophysiology of the problem prior to starting treatment. Parents often have major concerns about laxative use but there is no evidence that long term laxative use in children causes atonic bowel. A child who is soiling must be managed in a blame free environment and it is vital that all understand that the soiling is involuntary. Negotiate behavioural interventions suited to child's stage of development. These could include scheduled toileting after meals, maintenance of bowel diary, rewards systems.

Diet and fluids: Do not use dietary interventions alone as first line treatment (NICE CG99)
Advise on fibre and adequate fluids.

Give written information: to support verbal advice

Laxatives:

Aim to first clear retained or impacted stool and then establish a normal bowel pattern (97% of normal children pass stool between 2 times per day and every 2 days).
Successful clearout is usually indicated by passage of regular stool, a cessation of soiling, regain of rectal sensation, absence of abdominal signs on examination, improved behaviour and appetite.

Points to note regarding laxative treatment:

- There is little published data on laxative use. NICE guidance suggests that PEG 3350 + electrolytes is effective, well tolerated and safe. It can be used at home with low supervision and it is easy to titrate. Experience also suggests that it is safe and effective to use in children aged less than 1 year. However, it is off-license for this age group.

- Laxative doses shown below are starting doses. Many children need considerably higher doses to achieve clearance of stool and maintain regular evacuation. Doses should be titrated against symptoms to achieve a regular, soft stool.

- A child may start to soil or have increased soiling when laxatives are first started. This is usually due to increased overflow but is often misinterpreted as over treatment and hence laxatives are stopped. In this situation continued or increased medication is required to clear the retained stools.

- Start with a small dose as indicated in the following table and slowly build up – this reduces soiling and abdominal pain. Many children experience abdominal pain when faecally loaded. This usually resolves once retained stools are cleared.

- Laxatives are often needed for many months / years and relapse rate is high (in long term follow up studies over 50% of children required laxatives for at least 1 year but 70 % were off laxatives by 2 years). Ensure follow-up is arranged when a child is started on laxatives – either with GP or refer to general paediatrician on-call.

- Use laxatives in combination with behavioural therapy, e.g. Ensure child and family understand pathophysiology, remove blame, encourage regular routine – e.g. sitting on toilet after meals; improve fluid intake; discourage holding on – communication with schools may be required to request the child has access to the toilet during lessons or use of a more private toilet.

Laxatives doses:

DRUG CLASS	DRUG	STARTING DOSE	NOTES
Osmotic laxatives	Lactulose	1-11months 2.5mls bd 1-4 yrs 2.5- 10 mls bd 5-17yrs 5- 20mls bd	Advice on dental care – rinse mouth and brush teeth after use.

DRUG CLASS	DRUG	STARTING DOSE	NOTES
Macrogols Polyethylene glycol (PEG) 3350 + electrolytes		*** See chart below for faecal disimpaction regimen**	
Paediatric	Movicol Paediatric Plain® or chocolate flavour	1-11 month ½-1 sachet daily 1-5 yrs 1 sachet daily 6-11 yrs 1-2 sachet daily	Increase in half sachet stages until BO regularly and without distress. Mix with juice. (maximum 8 sachets per day)
Adult	Laxido® Movicol ®(adult preparation) (Cosmacol® prescribed by GP's) .	12-18 yrs 1-2 sachets daily	Adult strength sachets may be better for older children .Movicol is available in chocolate flavour. (maximum 8 sachets per day)
Stimulant laxatives		1m 2.5mgs daily	Increase in 1mg stages. (max dose 10mg)
Sodium picosulfate	Elixir (5mg/5ml)	2m -3yrs 5mg daily >4 yrs 5mg daily	Increase in 2.5mg stages. (max dose 10mg daily) Increase in 2.5mg increments (maximum dose 20mg daily)
Bisacodyl	Tablets (5mg) Suppository (5 mg)	<10yrs 5mg daily >10yrs 10mg daily (up to 20mg daily) 5 mg or 10mg daily	Should not be chewed. Often preferred by older children. Not licensed for children < 4 yrs Occasionally useful in older children(> 4yrs) but only with their full co-operation

DRUG CLASS	DRUG	STARTING DOSE	NOTES
Docusate sodium	Oral solution (12.5 mg/5ml) Capsules (100mg) Adult solution (50 mg/5ml)	6mths- 2 yrs: 12.5mg tds 3-11 yrs: 12.5-25mg tds 12-18 yrs: up to 500mg daily in divided doses	May be mixed with milk or squash
Senna	Syrup (7.5mg/5ml)	1 month – 3yrs 2.5-10 ml daily 4-18 yrs 2.5-20mls daily	Appears to be less effective than other stimulants so only use if others not tolerated
Other laxatives			
Picolax®		½ to 1 sachet (5-10mg)	Rapid and dramatic action. Good for initial clearout. May be used as extra boost at weekends.

FAECAL DISIMPACTION

* For severe faecal impaction high dosages of PEG 3350 + electrolytes (Laxido®) may be required to achieve clearout. These can be given as per the manufacturer's guidelines below. Should this treatment prove ineffective the child may require admission to hospital for assessment and administration of Klean prep via a naso-gastric tube and it is recommended that the child should be referred to the specialist continence team.

Dosages of PEG 3350+electrolytes for treatment of impaction:

	AGE 2 – 4 YEARS NUMBER OF SACHETS	AGE > 5 YEARS NUMBER OF SACHETS	ADULT MOVICOL/LAXIDO can be used in age 12-18 year
DAY 1	2	4	4
DAY 2	4	6	6
DAY 3	4	8	8
DAY 4	6	10	8

DAY 5	6	12	8
DAY 6	8	12	
DAY 7	8	12	

D. MANAGEMENT OF CONSTIPATION +/- SOILING

Explanation and education

Does child have faecal impaction?

NO

YES

DISIMPACTION

- Follow PEG 3350+electrolytes disimpaction regime
- Add a stimulant if not disimpacted after 2 weeks
- Review all children undergoing disimpaction within 1 week
- Refer to specialist continence team and consider admission for bowel washout with Klean prep if faecal mass fails to clear with adequate oral laxatives or ongoing faecal soiling and evidence of ongoing constipation.
- Avoid enemas and suppositories if possible.

MAINTENANCE THERAPY

- First line treatment – PEG 3350+electrolytes
- Titrate laxative dose to response (may need large doses).
- Add a stimulant laxative if PEG 3350+electrolytes does not work
- Substitute a stimulant laxative if PEG3350+electrolytes is not tolerated. Add another laxative e.g. lactulose or docusate if stools are hard
- Establish good toileting routine e.g. regular sits after meals
- Review frequently to ensure not becoming reimpacted and to address issues with medicine, school etc.
- Continue medication at maintenance dose for several weeks after regular bowel habit is established. Continue laxatives until toilet training is well established. Do not stop medicines abruptly.

If response is poor:

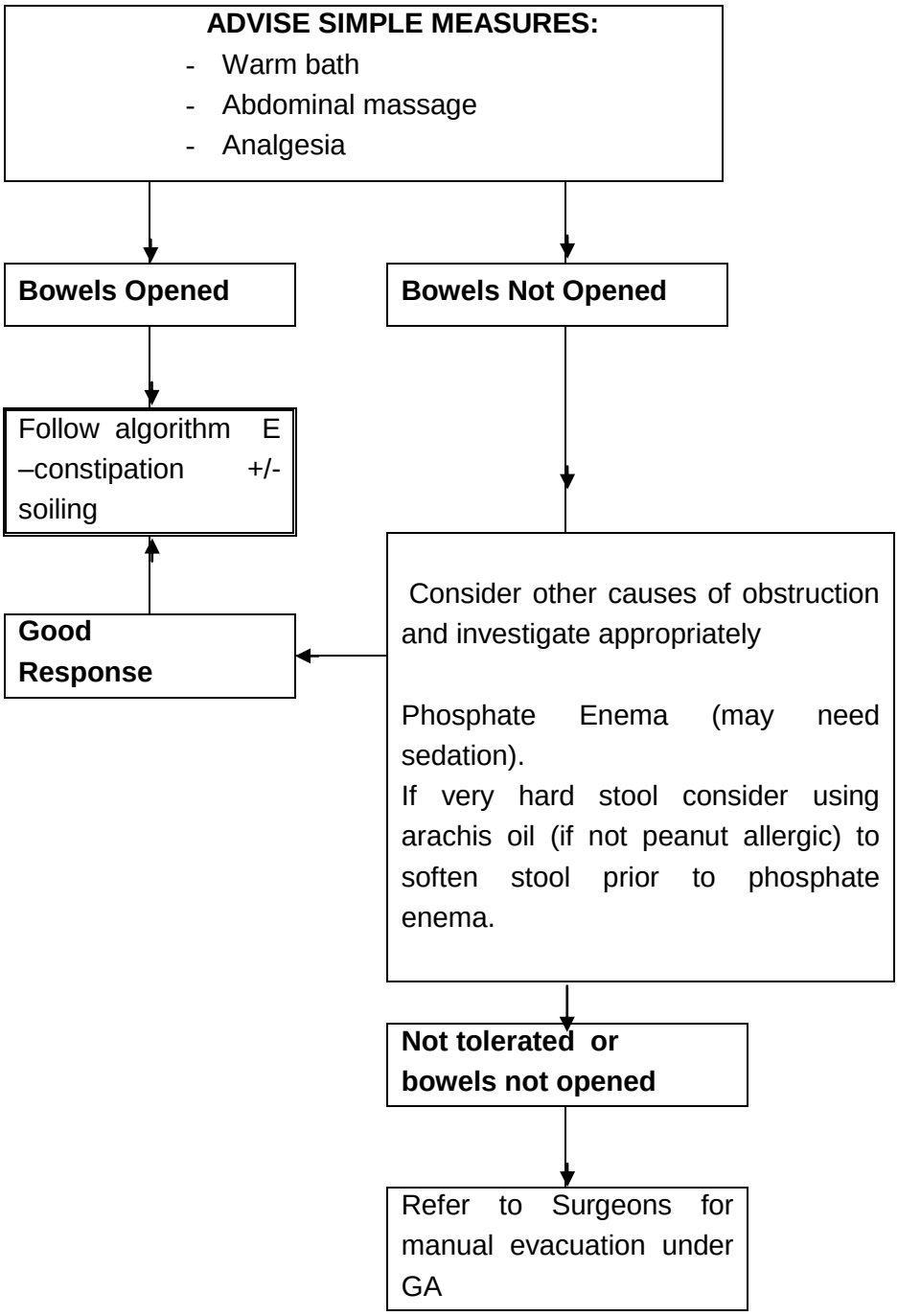
- Address behavioural and psychological issues.
- Address problems with motivation/ compliance.

- Consider school issues e.g. access to toilets, standard of toilets etc.
- Consider developmental problems.
- Consider organic causes.
- Is clear out adequate?

Refer to specialist continence clinics if poor response after 3 months of adequate treatment

E. SEVERE ACUTE CONSTIPATION / FAECAL IMPACTION

(Severe pain / distress, vomiting, urinary retention)



F. INDICATIONS FOR REFERRAL TO SPECIALIST CONSTIPATION / CONTINENCE TEAM

There is good evidence that complex continence issues are best managed by a multidisciplinary team with a specialist nursing service that can provide frequent ongoing support, liaison with school, nursery etc.

- Long standing/relapsing constipation.
- Chronic soiling.
- No response to 3 months treatment with a softener and a stimulant in increasing doses.
- Substantial behavioral and psychological problems associated with constipation soiling or wetting.
- Excessive parental concern.
- Concern about organic causes.
- Consideration for more specialist techniques for management of constipation such as antegrade colonic enemas (ACE) or rectal washout

G. SPECIALIST PAEDIATRIC CONTINENCE CLINICS:

These clinics form part of the integrated continence service for children.

Note: All referrals are read by Consultants concerned who will re-route referrals if appropriate.

Constipation and soiling

Dr S Matthai (Trust lead and clinical lead for continence) One clinic weekly at NGH.and alternate week at centenary house

Clinics are held at Centenary House and Northern General Hospital
Please make referrals
Community Child Health HQ, Centenary House,
55 Albert Terrace Rd,
Sheffield, S6 3BR

Day time wetting

Dr G Ehidiamhen Consultant Paediatrician with an interest in Nephrology
Accepts referrals from children with predominantly urinary symptoms, such as daytime wetting and recurrent UTI.

Community Continence Clinics - deals with Nocturnal and daytime enuresis. Refer as above to community continence

Mr P Godbole Consultant Paediatric Urologist
Accepts referrals for day wetting needing urology investigations

Continence nursing team:

The nursing team is part of the various multidisciplinary teams that manage children with continence problems in Sheffield. Due to volume of work they are unable to see all children with constipation and continence problems but will be involved in the care of those referred to the specialist clinics. The nursing service offers holistic assessment, advice, support and management in nurse led clinics and at home, working closely with schools and other agencies. It also provides a review and support service for children using continence products.

The continence nursing service consists of:

Specialist area - Urology
Jo Searles
0114 2260502

Specialist area - Constipation / Daytime Enuresis

Katheryn Holmes, Sylvia Blythe (with Drs Matthai and Ehidiamhen)
Telephone advice on 0114 2260502 from 09:00-17:00 hrs Mon – Thursday

Jocelyn Walton, Donna Batholomew, Rebecca Woodward
Community continence clinics at Centenary house
Tel advice on 0114 2262076

Continence / Stoma Nurse Specialist
0114 2260502

Continence advisor/ product specialist
0114 2260502

Team administrator
0114 2260502

4. References

NICE clinical guideline 99 May 2010