Guidelines for Management of Idiopathic Childhood Constipation

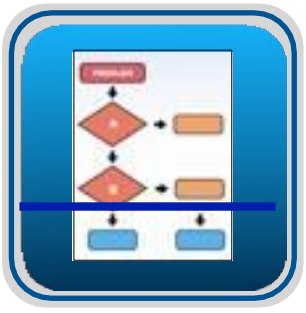
Introduction

- Constipation is common in childhood affecting up to 30% of the child population. Symptoms become chronic in more than one third of patients and constipation is a common reason for referral to secondary care.
- 'Idiopathic Constipation' refers to constipation not explained by anatomical or physiological abnormalities.
- A NICE guideline entitled 'Diagnosis and management of idiopathic childhood constipation in primary and secondary care' was published in 2010 and the RHSC paediatric department endorses its approach. Key steps are to:

    1) Identify symptoms of constipation and faecal impaction through history and physical examination
    2) Recognise features in history / examination indicative of alternative underlying pathology (termed *red* and *amber flags*)
    3) Provide advice on diagnosis
    4) Prescribe and supervise a disimpaction regimen (where evidence of faecal impaction exists) followed by a sustained course of maintenance laxative therapy.

Lothian Guideline

- Click on icons for quick link to our simple to use



flow chart

formulary

referral checklist.

- Referrals will not be accepted without evidence of use of the above guidance.
- We have provided worked examples of common scenarios encountered in primary care (Figure 4).
- Finally please see our links to other useful resources (Figure 5).

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Lothian Guideline for Management of Idiopathic Childhood Constipation.

Take a history - 2 or more from the following indicate that the child is constipated:

- <3 stools per week (type 3 or 4, see Bristol Stool Form Scale) Note - this does not apply to breast fed babies over 6wks who may stool less frequently.
- Large stools that block the toilet or 'rabbit dropping' type 1 stool (see Bristol Stool Form Scale)
- Overflow soiling (very loose, smelly stool passed without sensation)
- Poor appetite that improves with passage of large stool.
- Waxing and waning of abdominal pain related to passage of stool
- Retentive posturing e.g. straight-legged, on tiptoes with an arched back
- Straining or pain on defaecation
- Bleeding associated with passage of hard stools
- Previous history of constipation or anal fissure

Examine child

Examine abdomen, perianal region, spine and lower limbs.
Note - Perianal inspection is essential particularly where there is a history of early onset constipation.
Rectal examination however ***is not*** routinely undertaken to diagnose constipation.

Look for *red flags*

- Symptoms since birth or within 2 weeks of birth*
- Delayed passage of meconium (>48 hours in term infant)*
- Passage of 'toothpaste stool'*
- Abdominal distension and vomiting*
- Abnormal appearance of anus* (e.g. fistulae, multiple fissures, tight or patulous anus, anteriorly placed anus, absent anal wink)
- Abnormalities of lower spine or gluteal region* (e.g. discoloured or hairy patch, sinus or sacral pit, asymmetry of gluteal muscles, sacral agenesis)
- Unexplained weakness or deformity of lower limbs; history locomotor delay**

If red flag present and child is well -

- Treat constipation (see below)
- Refer - * to paediatric surgical outpatients.
  **to paediatric neurology or general paediatrics.

If red flag present and child is unwell -
(e.g. surgical abdomen, suspected obstruction)

- Do not treat constipation.
- Discuss child with on-call paediatric surgeon and refer to A&E

Look for *amber flags*

- Evidence of faltering growth
- Child protection concerns

If amber flag present

- Faltering growth - treat constipation and consider screening bloods. Refer child if weight fails to improve with treatment of constipation.
- Child protection concern - treat constipation and follow local child protection procedures.

If no red or amber flags - treat as idiopathic constipation

Ask - is there evidence of faecal impaction (palpable faecal mass) or overflow soiling?

Impacted

- Prescribe **disimpaction regimen** (Table 1)
- Provide written advice (see useful resources - ERIC guide to childhood soiling)
- Warn to expect diarrhoea with treatment

Review in 1 week

If **unsuccessful or not tolerated**

- Try alternate disimpaction regimen (Table 1)
- Note - if macrogol oral powder 3350 / Movicol used first line and tolerated but ineffective, continue maximum tolerated dose and ADD stimulant laxative (Table 3).

If still unsuccessful

Refer to General Paediatrics

If **successful**

- Prescribe age appropriate maintenance therapy (Table 2)

Not Impacted

- Prescribe **age appropriate maintenance therapy** (Table 2)
- Titrate dose to achieve soft bowel motion every 1-2 days (see Table 2)

If **unsuccessful**

- Could child be impacted? If in doubt - prescribe empirical disimpaction regimen (Table 1).
- Not impacted - Add stimulant laxative e.g. senna or sodium picosulphate (Table 3)
- If stools remain hard - Add softener - lactulose or sodium docusate (Table 3) but low threshold to try empirical disimpaction regimen (Table 1).

If **laxative not tolerated**

- replace with alternative softener and/ or stimulant laxative (Table 3)

If not successful despite good doses of laxatives for **4 weeks** if under 1 year or for **3 months** if over 1year

- Prescribe empirical disimpaction regimen (unless this has already been done within last 4 weeks) (Table 1)
- If no response - **Refer to general paediatrics**

If **successful**

- Continue regular laxative therapy for 3-4 months minimum.
- In children with 'difficult' or very longstanding constipation, longer course may be neccessary - review these cases prior to reducing / stopping laxatives and if in doubt continue.

When stopping laxatives

- wean SLOWLY according to response
- maintain low threshold to return to effective doses of maintenance therapy if constipation recurs and warn families in advance that there is a high likelihood of this happening

Paediatric Laxative Formulary

Table 1. Disimpaction regimens

1. Macrogol oral powder 3350 (*Movicol*)[1]		
Movicol Paediatric Plain Preparation • Dissolve contents of each sachet in quarter of a glass (approx. 60–65 mL) of water. The reconstituted solution should be kept in a refrigerator and discarded if unused after 24 hours. • Total daily dose to be divided and taken over 12 hours	**6mo - 1 yr**	½ - 1 sachet daily
	1-5 years	Day 1: 2 sachets Increase in steps of 2 sachets every second day until maximum of 8 sachets Continue with 8 sachets daily for maximum 7 days or until disimpaction achieved.
	5-12 years	Day 1: 4 sachets Increase in steps of 2 sachets daily until maximum of 12 sachets Continue with 12 sachets daily for maximum 7 days or until disimpaction achieved.
Adult Movicol or Laxido Preparation • Dissolve contents of each sachet in half a glass (approx 125 mL) of water. The reconstituted solution should be kept in a refrigerator and discarded if unused after 24 hours. • Total daily dose to be divided and taken over 6 hours	**12-18 years**	Day 1: 4 sachets Increase in steps of 2 sachets daily until maximum of 8 sachets Continue with 8 sachets for maximum 7 days or until disimpaction achieved.

2. Sodium Picosulphate[2]		
Sodium picosulfate Elixir - 5mg in 5 mL Perles - 2.5mg per tablet. Not licensed under 4 years	**<2 years**	2.5mg twice daily for 2-3 days
	2-5 years	5mg twice daily for 2-3 days
	5-10 years	10mg twice daily for 2-3 days
	>10 years	10-15mg twice daily for 2-3 days

3. Citramag[3]		
Citramag oral powder *Preparation* *Add contents of sachet to 200ml hot water, stir and allow to cool. Maintain low residue diet / clear fluids during treatment.*	**5-9 years**	1/3 sachet *as single dose repeated if required after 6 hours*
	10-12 years	1/2 sachet *as single dose repeated if required after 6 hours*
	>12 years	1 sachet *as single dose repeated if required after 6 hours*

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Table 2. Maintenance Laxative Therapy

1. Macrogol oral powder 3350 (*Movicol*)[1]		
Movicol Paediatric Plain *Not licensed for use in children under 2 years**	**6mo - 1 yr**	½ - 1 sachet daily
	1-6 years	1 sachet daily, adjust dose to response. Maximum 4 sachets daily
	6-12 years	2 sachets daily, adjust dose to response. Maximum 4 sachets daily
Adult Movicol or Laxido	**12-18 years**	1-3 sachets in divided doses, adjust dose to response. (Maintenance usually 1-2 sachets daily)

2. Lactulose[1]		
Lactulose solution *(Brush teeth after use)*	**< 1 year**	2.5ml bd, adjust to response
	1–5 years	2.5–10ml bd, adjust to response. Max dose 90mL daily.
	5–18 years	5–20 ml bd, adjust to response. Max dose 90mL daily.

*NICE recommendation. Informed consent should be obtained and documented whenever medication or doses are prescibed that are different from those recommended by the BNFc

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Table 3. Osmotic and stimulant laxatives - recommended doses for maintenance therapy

Osmotic laxatives

Lactulose[1]		
Lactulose solution (Brush teeth after use)	**< 1 year**	2.5ml bd, adjust to response.
	1–5 years	2.5–10ml bd, adjust to response. Max 90mL daily.
	5–18 years	5–20 ml bd, adjust to response. Max 90mL daily.

Stimulant laxatives

FIRST LINE

Sodium picosulfate[1]		
Sodium picosulfate Elixir (5 mg/5 ml)	**1 mo - 4 yrs**	2.5–10mg once daily, adjust to response.
	4–18 years	2.5–20mg once daily, adjust to response.
Sodium picosulfate Perles (1 tablet = 2.5mg)	**4–18 years**	2.5–20mg once a day, adjust to response.

OR

Senna[1]		
Senna syrup (7.5 mg/5 ml)	**1 mo - 4 yrs**	2.5–10 ml once daily, adjust to response.
	4–18 years	2.5–20 ml once daily, adjust to response.
Senna (non-proprietary) (1 tablet = 7.5 mg)	**4–18 years**	1–4 tablets once daily, adjust to response.

SECOND LINE

Docusate sodium[1]		
Docusate sodium paediatric oral solution (12.5mg/5mL) May be mixed with milk or squash	**6 mo –2 yrs**	12.5mg three times daily, adjust to response.
	2–12 years	12.5–25 mg three times daily, adjust to response.
Docusate sodium adult oral solution (50mg/5mL) or capsules (100mg per capsule)	**12–18 years**	up to 500 mg daily in divided doses, adjust to response.

OR

Bisacodyl[1]		
Bisacodyl tablets (by mouth)	**4–18 years**	5–20 mg once daily, adjust to response.

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[1]Doses as per BNF for children
[2]Doses as per Lothian Joint Formulary and 'Tough Going' guidelines
[3]Doses as per 'Tough Going' guidelines. Not licensed under 4 years, Not licensed for use in constipation.

Referral Checklist

Please refer the following children to general paediatrics at RHSC/SJH (as appropriate)

1. Any child with a 'red' or 'amber' flag

- Infants with suspected *anatomical abnormalities* should be discussed with on-call paediatric surgeon and urgent review arranged.
- Children with failure to thrive should be referred to general paediatrics (preferably *after* screening bloods done unless severe).
- Children for whom there are child protection concerns - refer via social work or child protection desk.

2. Any child with chronic constipation not responding to recommended doses of laxatives

- Refer children < 1yr after 4 weeks optimal treatment
- Refer children >1yr after 3 months optimal treatment

3. Any child with faecal impaction +/- overflow who fails to respond to disimpaction regimens.

- These children should be discussed with on-call paediatric registrar (RHSC/SJH) or GI registrar (RHSC) re possible admission for supervised inpatient disimpaction.

If you wish to refer a child who falls out with the above criteria, please state specific reason for referral in your letter or contact on-call paediatric registrar (RHSC/SJH) or GI registrar (RHSC) by phone for further advice.

All Referrals - please include the following in the letter:

- **List of symptoms**
- **Duration of symptoms**
- **Examination findings including details of perianal inspection (essential in children < 1 year)**
- **Management to date including doses and duration of laxative therapy**

Note - Waiting time for a general paediatric outpatient appointment may be up to 3 months.

- If your patient requires more urgent attention contact on-call paediatric registrar (RHSC/SJH) or GI registrar (RHSC) via switch board for further / interim advice.
- Cases of chronic constipation not responding to optimal laxative therapy will usually be further investigated following referral to exclude other diagnoses (e.g. coeliac disease, hypothyroidism). Consider arranging screening for these together with other baseline bloods whilst awaiting outpatient appointment.

Figure 3: Example constipation cases

1. **Infant with toothpaste stool and abnormal anus**
2. **Infant with straining and infrequent dirty nappies**
3. **Pale, lethargic 2 year old with constipation**
4. **4 year old with chronic constipation - lactulose not effective**
5. **Teenager with constipation and soiling**
6. **Child with global developmental delay and suspected constipation previously managed with PR medication**
7. **Child with fresh PR bleed associated with constipation**
8. **Child with constipation and overflow 'unresponsive' to laxatives and family 'loosing faith' in diagnosis.**

Figure 5 : Useful resources

Constipation

GI Department Constipation guideline
Concise document outlining diagnosis and treatment of childhood constipation. Aimed at health professionals. Choice and doses of laxatives vary from current recommendations.
http://www.refhelp.scot.nhs.uk/dmdocuments/Paediatric_GI/paed%20constipation-final.doc

Tough Going - see Refhelp Homepage
Constipation management pathway document for use in primary and secondary. Useful resource. Choice and doses of laxatives given vary from current recommendations.
http://www.refhelp.scot.nhs.uk/dmdocuments/Paediatric_GI/RHSC_constipation11.pdf

ERIC
ERIC stands for *Education and resources for improving childhood continence*.
Useful website with information re constipation and soiling aimed at children, teens, parents and health professionals
http://www.eric.org.uk/

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ERIC LEAFLETS
ERIC guide to childhood soiling
Useful guide for parents explaining why children soil, what they can do to help encourage regular toileting and what to expect from treatment.
http://www.eric.org.uk/assets/downloads/31/SoilingLeafletweb%20dekken3.09.pdf

Get Going
Advice leaflet for children and teens explaining toilet routines, posture and exercises aimed at encouraging stooling plus advice on regular fluid, healthy eating and excercise.
http://www.eric.org.uk/assets/downloads/32/Get%20going%20WEB%207.11.pdf

Sam's Story
Story of an 8 year old boy with constipation and soiling. Aimed at children over 4 years. Discusses his problem, how he feels about it and how he got better with the help of medication, regular toileting and attention to fluid and diet.
http://www.eric.org.uk/assets/downloads/33/Sams%20story.pdf

PATIENT.CO.UK
Useful web page on childhood constipation giving information on normal bowels habit, constipation, impaction and soiling, route to diagnosis, treatment and advice re toileting, fluid intake and diet. Aimed at parents.
http://www.patient.co.uk/health/Constipation-in-Children.htm

CHILDHOODCONSTIPATION.COM
http://www.childhoodconstipation.com/
Website dedicated to childhood constipation with information and resources for patients, carers, health professionals and children. Sponsored by Norgine (manufacturers of Movicol). Note - States Movicol paediatric plain is the only oral medicine licensed for treating faecal impaction in children. If parents accessing website - further reassurance re safety of alternate laxative preparations may be needed.

Hirschsprung's

http://www.hirschsprungs.info/
Website of Hirschsprung's and motility disorders support network (HMDSN). Useful information / contact point for children and families diagnosed with Hirschsprung's disease.

http://www.patient.co.uk/doctor/Hirschsprung's-Disease.htm
Link to Patient.co.uk website page on Hirschsprung's. Aimed at health professionals.

Figure 3: Example constipation cases

1. Infant with toothpaste stool and abnormal anus

A mother brings her two-week old baby boy to see you with difficulty passing stools.

You take a history
He was a term baby who passed meconium within two days of birth. He is breastfed and feeding well and has re-gained his birth weight. There is no vomiting or abdominal distension. Mother reports that he cries and strains to pass stool and when he does it comes out 'like toothpaste'. He has been seen by the health visitor for this a couple of times.

Physical examination
He is alert and looks well. There is no abdominal distension and no masses palpable. You look at his peri-anal region and see that his anus is small 'like a pin-hole'. You note his spine, sacral area and lower limbs look normal and he kicks vigorously.

Differential diagnosis
You note the red flags: 2 weeks old and passing 'ribbon-like stool' and from your examination suspect this baby has anal stenosis (or less likely Hirschprung's). You contact the on-call paediatric surgeon and arrange referral to A&E.

Diagnosis
Anal stenosis

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2. Infant with straining and infrequent dirty nappies

A mother brings her 6 week old daughter with constipation since two weeks of age

You take a history
This baby was born at term, delivered by c-section, is bottle fed and is gaining weight well. She passed meconium within two days of delivery. She initially opened her bowels once every other day but for the past four weeks is going 5 or 6 days between having a dirty nappy. Mother says she cries and strains a lot to pass a stool and it is quite thick and pasty when it comes out. There is no vomiting or abdominal distension. She her nappy is wet at every nappy change.

Physical Examination
She looks alert and well. She is active and her abdomen is not distended with no faecal mass palpable. Her peri-anal region looks normal as do her spine, sacral area and lower limbs (which are moving normally).

Differential diagnosis
You note her relatively young age but note she passed meconium normally after birth and had no problems for the first two weeks of life and has no abdominal distension or vomiting (making Hirschsprung's unlikely). There are no other concerns from the history or examination. You wonder whether she has idiopathic constipation.

Action:
- You start 2.5mL lactulose bd with a plan to increase to a maximum of 7.5mL bd if required.
- You arrange to review her at two weeks and find she is passing a regular soft formed stool.
- You continue the lactulose for a further 6-8 weeks and gradually wean her off.
- Given her young age, if she had failed to respond within 4 weeks of treatment, she should be discussed with the on-call paediatric consultant, and timely review arranged.

Diagnosis:
Idiopathic constipation

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3. Pale, lethargic 2 year old with constipation

A mother brings her 2 and a half year old daughter to see you with constipation. Her mother also feels her daughter is pale and lacking in energy.

You take a history
She opens her bowels less than three times a week and passes large, hard stools. This started before the age of 1 year. She is a fussy eater and she often gets a bloated tummy. Mother feels her daughter is pale and lacking in energy. She had no problems as a young baby.

Physical Examination
She looks pale. She hasn't been weighed recently but her arms and legs look a little scrawny. You notice that her abdomen is distended but it is soft. She has no palpable masses or obvious faecal loading. Her peri-anal region looks normal but you notice that her buttocks look 'flat' (or a little wasted). She walks normally and climbs easily onto the examination couch.

Differential diagnosis
You look for red / amber flags and are concerned about her pallor, lethargy, abdominal distension and signs of poor weight gain. You are concerned these may reflect underlying pathology. You consider Hirschsprung's but note there was no delay in passage of meconium after birth and no problems with constipation as a baby.

Action
- Given her abdominal distention, you wonder if she may be impacted. You prescribe an empirical trial of macrogol oral powder 3350 or sodium picosulfate 'in case'.
- You follow up by prescribing maintenance laxative therapy, either macrogol oral powder 3350 (Movicol paediatric plain) or lactulose, adjusting dose to response.
- You arrange for baseline bloods to be taken
- You arrange to review 2 weeks after the bloods are done to discuss the results.

Diagnosis:
Blood tests confirmed a positive coeliac screen. Child is referred on to paediatric gastroenterology for definitive tests.

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4. 4 year old with chronic constipation - lactulose not effective

A mother brings her 4 year old son who has had constipation since potty training at 3 years of age. Mother is anxious to get this sorted out before he starts school in the autumn.

You take a further history
There were no problems as a baby. He now opens his bowels less than twice a week, he tends to go off his food and he tries to hold in his stool. It's a struggle to get him to sit on the toilet. When he does go he passes a large hard stool and is often very upset. The family have tried lactulose intermittently in the past without success. Mother is not concerned about his growth. He drinks well but is a fussy eater.

You examine him
He looks well with no pallor. His abdomen is slightly full with some palpable faecal loading. He has a normal peri-anal region with no obvious fissures.

Action
- He has faecal loading so you prescribe a disimpaction regimen: either macrogol oral powder 3350 or sodium picosulfate
- You then prescribe maintenance laxative therapy. If you used macrogol oral powder 3350 to disimpact, start maintenance therapy at half to dose required to achieve disimpaction. Else start at 1 sachet a day and increase to maximum of 4 sachets a day sufficient to produce regular soft stool.
- You arrange to review after two weeks and consider whether to add in a stimulant laxative depending on response to single agent maintenance therapy.
- You arrange regular follow up thereafter.

Progress
At 3 months, he is still passing infrequent, hard stool despite good doses of macrogol oral powder 3350 (which you believe he is taking).

Action
- You consider if he has become re-impacted. You prescribe a further empirical trial of disimpaction therapy and if he fails to respond, refer to paediatric outpatient clinic for review.
- Whilst awaiting an appointment you arrange screening bloods to exclude other pathology.

Diagnosis:
Chronic constipation (previously under treated) requiring repeated disimpaction and then regular longer term maintenance therapy

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5. Teenager with constipation and soiling

A 14 year old boy comes to see you, reluctantly, with his mother. He is quiet and a bit withdrawn. Mother says he has not been attending school and one of the reasons is he keeps soiling himself.

You take a history
He can soil himself up 4 times a day. He feels the need to go but can't always get to the toilet in time. The stool is smelly and watery brown but with no blood. He refuses to use the school toilets. He rarely passes a large formed stool but sometimes passes 'rabbit droppings'. He has always been thin. He prefers to spend his time indoors playing computer games. He has no urinary symptoms.

You examine him
He looks thin but has no pallor. His abdomen is slim with a large faecal mass in the left lower quadrant. On examining his peri-anal region you can see some leakage of stool from his anus and note that he has some staining of his pants. His perianal area, spine and legs look otherwise normal.

Impression:
You feel he has underlying constipation complicated by faecal impaction and overflow soiling.

Action:
- You prescribe a disimpaction regimen (either adult movicol / laxido, sodium picosulfate or citramag). You warn him that the medicine will give him watery diarrhoea and may take 3-5 days to work. You advise family to arrange time off school whilst he is on regimen.
- You arrange to review him in one week to check he has disimpacted and then commence him on maintenance with macrogol oral powder 3350, titrating dose to achieve regular soft bowel motions.
- You advise he will need to be on regular laxative therapy for at least 4 months *after* a normal bowel habit is achieved.

Diagnosis
Chronic constipation with overflow diarrhoea.

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6. Child with global developmental delay and suspected constipation previously managed with PR medication

A 7-year old boy with global developmental delay is brought to see you. He has a gastrostomy and is in incontinence nappies. Mother is concerned that he is in discomfort especially before and when he opens his bowels. He has had suppositories intermittently with varying effects

You take a further history
He has had vomiting in the past but this has resolved with anti-reflux medication. He is tolerating his overnight gastrostomy feed well. He opens his bowels once a week producing a hard stool with some distress but he also has frequent smears in his incontinence pads.

You examine him
He is in a wheelchair and does not look undernourished. His abdomen is soft but with some faecal loading palpable in the left lower quadrant. It is not possible to examine the peri-anal region as he requires a hoist to be moved.

Impression:
You feel he is constipated (passing infrequent, painful stool with evidence of faecal loading and overflow)

Action
- You prescribe a disimpaction regimen (either macrogol oral powder 3350 or sodium picosulfate) to be given via his gastrostomy.
- You arrange to review him in one week to check he has successfully disimpacted and then commence him on maintenance laxative therapy (either macrogol oral powder 3350 or lactulose +/- a stimulant laxative depending on response).
- With his background of developmental delay, you are worried you could be missing something else, so arrange baseline screening bloods to be done. These are normal.
- You advise his family he will need to be on regular laxative therapy for at least 3 months *after* a normal bowel habit is achieved or likely long term given his underlying dysmotility and limited mobility.
- You contact his community dietician to suggest switching to a multi-fibre feed.

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7. Child with fresh PR bleed associated with constipation

A 6-year old girl is brought to see you as her mother has noticed she has had a few episodes of having blood on the toilet paper after she has opened her bowels and on occasion seeing blood in her stool.

You take a further history
The blood is bright red on the paper and on inspection, coats the outside of her stool. You find out she opens her bowels once every other day and sometimes strains and can be in discomfort. She passes rabbit-like pellets and the occasional large, hard stool. She doesn't drink a lot of fluid and doesn't like fruit or vegetables. She is an otherwise well girl with no weight loss, stool urgency or frequency and no nocturnal stooling. There is no family history of inflammatory bowel disease.

You examine her
She looks a little overweight. Her abdomen is soft with no obvious masses felt. Her peri-anal region looks normal with no obvious fissures, tears or haemorrhoids (unlikely in this age group)

Impression
You feel she has underlying constipation which has caused the PR bleeding.
You feel she is otherwise in good health with no obvious signs of inflammatory bowel disease.

Action:
- You recommend optimising fluid intake (1200ml / day) and encourage intake of high fibre foods including fruit, vegetables, high fibre bread, baked beans and wholegrain breakfast cereal but advise these measures will only be effective if implemented in tandem with laxative therapy.
- You commence her on maintenance laxative therapy - you choose macrogol oral powder 3350 (Movicol paediatric plain) 1 to 4 sachets a day, sufficient to produce a soft, formed, stool.
- If maximal doses of macrogol oral powder 3350 are ineffective or not tolerated you add in or substitute a stimulant laxative (e.g. senna or sodium picosulphate). If stools remain hard, you combine this with a stool softener (e.g. lactulose or docusate).
- You arrange to review her to ensure no new symptoms have developed (eg nocturnal stooling, passage of mucous, weight loss) and to monitor the response to laxative therapy.
- Once a regular bowel habit is established you continue laxatives for a further 3 months then gradually wean.
- If you remain concerned about bloody stool or new worrying symptoms arise, you contact paediatric gastroenterology via Refhelp email link (paedsgastroadvice) or discuss with GI registrar (RHSC).

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8. Child with constipation and overflow 'unresponsive' to laxatives and family 'losing faith' in diagnosis.

A mother attends with her 6 year old daughter. She complains her daughter continues to have frequent episodes of diarrhoea and 'accidents' and feels the laxatives your colleagues previously prescribed has only made the problem worse.

You take a further history
The girl has had several months history of constipation, going up to 6 days without opening her bowels, and passing hard pellet like stool with difficulty when she does go. For the past 2 months she has begun to soil herself but says she doesn't know when it is happening and is unable to control it even with regular toileting. When seen 3 weeks ago she was prescribed 5mL lactulose bd and advised to increase the dose until she was passing regular soft stool, however after increasing to 10mL bd she experienced abdominal cramps and bloating and the soiling got worse so they reduced it back to 5mL and then to once daily. They have also been prescribed short courses of senna and macrogol oral powder 3350 in the past and feel these were equally ineffective. They are concerned that the problem has gone on a long time and is not responding to medication and think further investigation may be warranted.

You examine her
The child is a little pale. Her abdomen is full and slightly tender on deep palpation. She has a large faecal mass palpable in her left iliac fossa and perianal examination reveals evidence of soiling and excoriation but no other abnormality. Her spine and lower limbs examine normally.

Differential Diagnosis
The history and examination fit with chronic constipation complicated by faecal impaction and soiling. Whilst she has failed previous trials of laxative therapy, the doses prescribed and length of course have likely been inadequate and you suspect from the mother's expressed lack of faith in the diagnosis, that compliance may have been an issue.

Action

- You review the diagnosis with the family explaining that she has chronic constipation, now complicated with faecal impaction.
- You explain the reason for the soiling, using patient information sheet to show them why the child is unable to control the passage of overflow stool past the loaded rectum.
- You reassure them that you are clear about the diagnosis but offer to arrange baseline blood tests if the family would find this reassuring.
- You prescribe a disimpaction regimen (either macrogol oral powder 3350, sodium picosulfate or citramag) and explain that this will make the soiling worse in the short term and advise to keep child off school while it takes effect.
- You arrange to review in 1 week to ensure disimpaction is successful / on course and advise the family you wish to hear sooner if for whatever reason they feel unable to continue with the treatment.
- If disimpaction fails despite optimal doses as per the formulary, you discuss with the on-call paediatric registrar and arrange review with a view to a supervised inpatient disimpaction.
- Once disimpaction is achieved you commence maintenance laxative therapy. Given recent lack of success with lactulose, you choose macrogol oral powder 3350 (Movicol paediatric plain) starting at half the dose required for disimpaction or adjusting up from 1 to 4 sachets per day as necessary to achieve a soft bowel motion every 1-2 days.
- You warn the family the child is likely to need laxative therapy for a minimum of 4 months and probably longer to allow the bowel to shrink back to normal size and recover sensation.

Diagnosis

Chronic constipation with faecal impaction and overflow soiling; previously under-treated.

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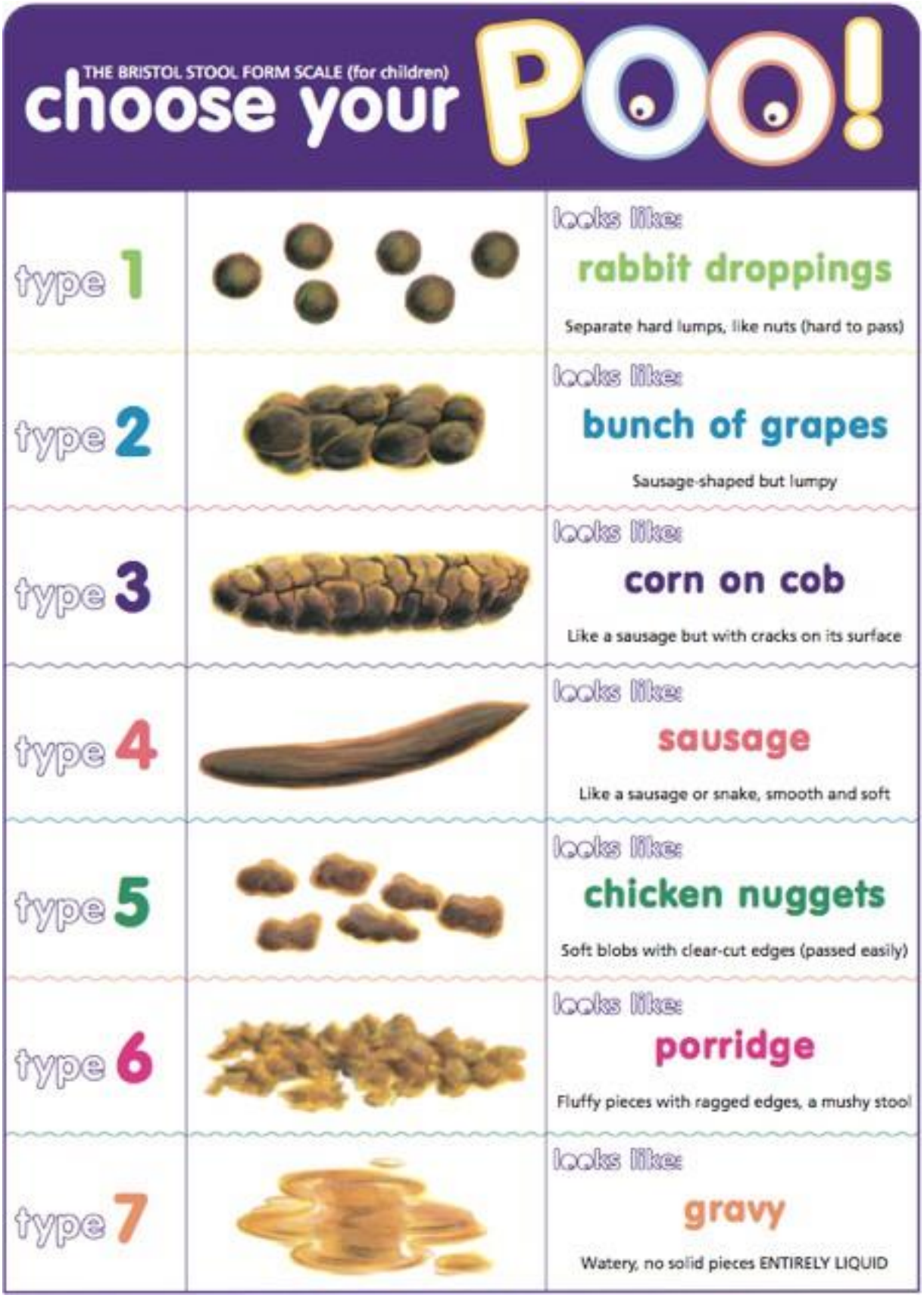
Appendix A

Bristol Stool Form Scale (for children)

Original image available from eric website - http://www.eric.org.uk/assets/Childrens%20Bristol%20Stool%20Form%20Scale%20April08%20.pdf



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Appendix B

Screening bloods for children with suspected non-idiopathic constipation.

- Full blood count
- Urea and electrolytes
- Liver function tests
- Glucose,
- Calcium, Magnesium, Phosphate,
- CRP
- Thyroid function tests
- Coeliac screen / IgA level (if gluten exposed)

Phlebotomy service available at RHSC OPD Thursday and Friday 10am to 3:30pm.