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Acknowledgements

Graham Clayden, Consultant Paediatrician St Thomas's Hospital London by permission of Oxford University Press.

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CONSTIPATION MANAGEMENT PATHWAY REGISTRATION DOCUMENT

NB: Please photocopy this form for other users of the pathway.

Name:

Address:

Contact Telephone No.

Have you found the pathway useful? Yes ❑ No ❑

Reasons:

Have you made any changes to the document? Yes ❑ No ❑

Details:

Would you like further educational support? Yes ❑ No ❑

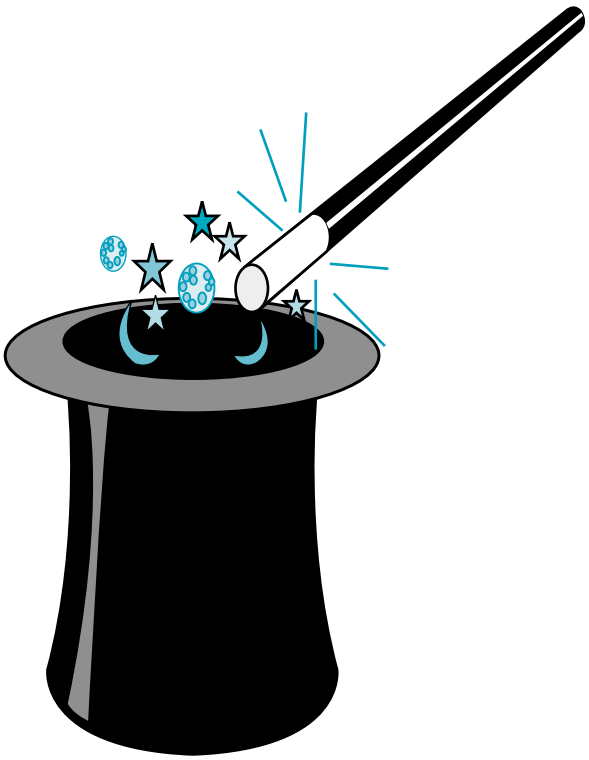
Details:

Return Address:

Constipation Working Group, c/o Secretary, Children's Community Team, Royal Hospital for Sick Children, 14 Rillbank Terrace Edinburgh EH91LF

'TOUGH GOING'

Childhood Idiopathic Constipation Management Pathway



A resource for health professionals

Introduction

'Tough Going' is a management pathway that has been developed to meet the needs of health professionals involved in the treatment of children with idiopathic constipation.

'Tough Going' is the outcome of two years of consultation and collaboration and provides a comprehensive resource covering all aspects of childhood idiopathic constipation management.

'Tough Going' provides an opportunity to facilitate early identification of constipation and increase understanding of management issues.

Successful implementation of this package will provide equity, quality of care and potentially prevent chronic constipation and associated problems.

Background

In 1996 the members of The Children's Community Team at Royal Hospital for Sick Children, Edinburgh devised and implemented a community guideline to support the management of children with idiopathic constipation and their families. As a result of changes and developments in practice a Multidisciplinary Constipation Steering Group was established in November 1998. The objective of the group was to readdress the issues faced by these families with the aim of developing a co-ordinated approach which would utilise services effectively.

Aims

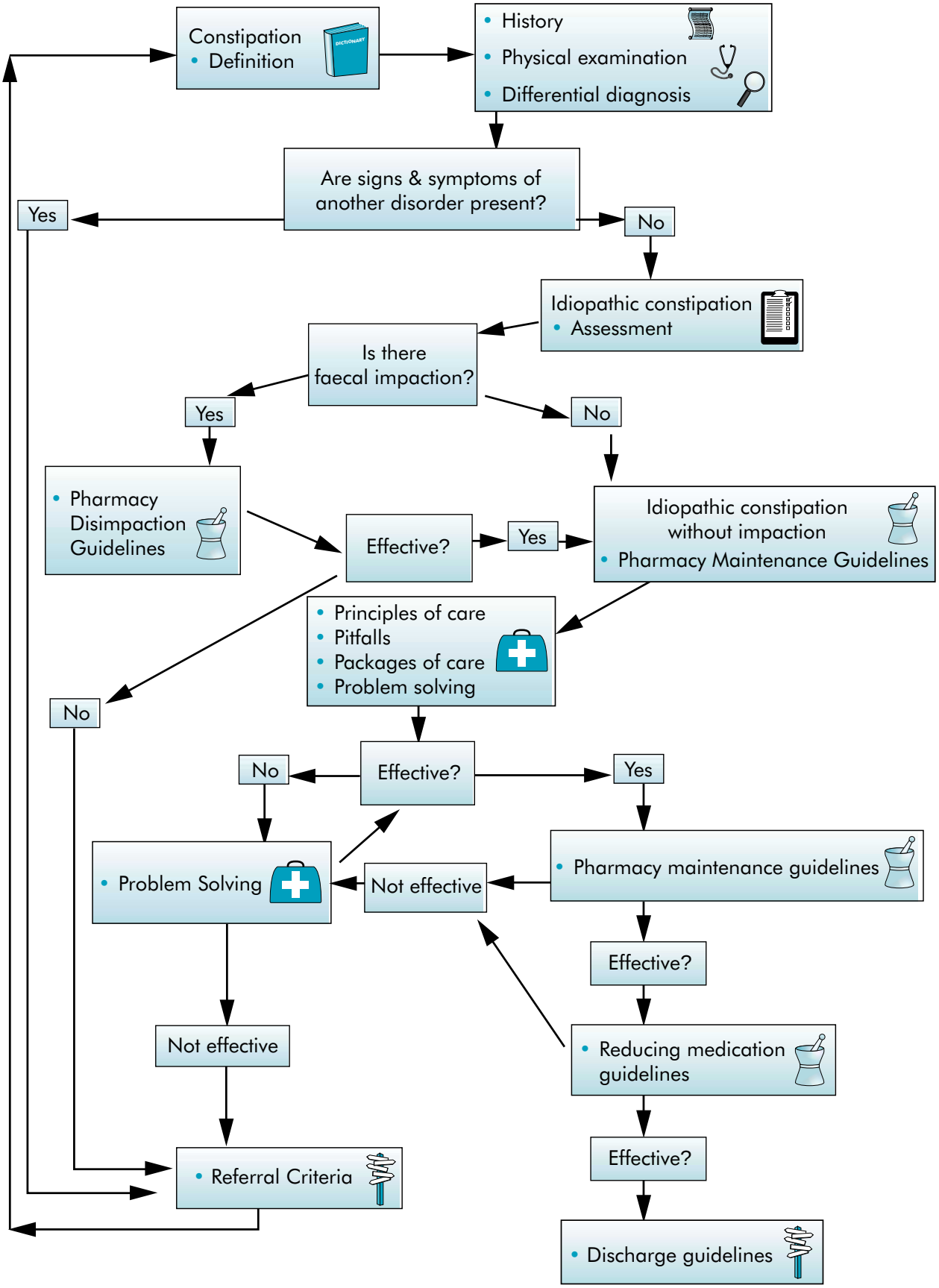
- To provide a quality service for children who have idiopathic constipation and their families.
- To ensure the care provided adopts an evidence based and co-ordinated approach.

How to use this document

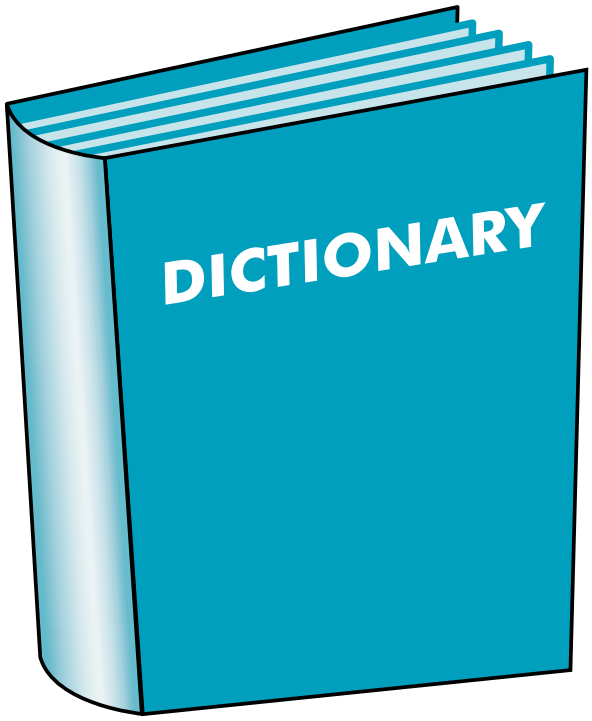
1. Familiarise yourself with 'Tough Going'
2. Photocopy and complete the Registration Document (page 2).
3. Work through each step of the Constipation Treatment Pathway, answering questions as they arise to ensure the management plan meets individual needs of children and their families.
4. Locate appropriate supporting information as indicated by the icons throughout the pathway.

CONTENTS

Constipation Treatment Pathway



SECTION 1:
Definition of constipation



Childhood Idiopathic Constipation

Idiopathic constipation is defined as having a stool which is difficult or painful to pass and is often associated with soiling.

What contributes to constipation?

SOCIAL:

- Poor diet, Overfeeding in infancy, Insufficient fluid intake, Excessive milk intake, Faddy eating
- Potty training difficulties, Problems with school toilets, Changes in routine/lifestyle
- Lack of exercise
- Limited privacy

PSYCHOLOGICAL:

- Perceptions and beliefs about 'normal' bowel patterns
- Poor bowel habit - ignoring the urge to go, withholding
- Eating disorders

PHYSICAL:

- Mild pyrexia, Dehydration, Immobility,
- Medications (analgesia, iron supplements, anticonvulsants, antispasmodics, antacids)
- Anal fissure
- Organic causes (Hirschprungs and other obstructive anal disorders, Neurological and Metabolic disorders)
- Position for defaecation
- Weight - under/over

CONSIDER CHILD ABUSE:

Remember that children who have been sexually abused may present with pain on defecation, or rectal bleeding. They may be too frightened or embarrassed to disclose that they have been, or are still being, abused. If you have reason to suspect that child sexual abuse may be the cause of constipation, you have to follow your local Child Protection Guidelines, and discuss your concerns at an Initial Referral Discussion. Advice should be sought from the local Lead Clinician (doctor or nurse) in Child Protection.

Signs and symptoms of childhood idiopathic constipation

- Poor appetite
- Lack of energy
- Unhappy, angry, irritable
- Irregular bowel activity
- Foul smelling wind and stools, excessive flatus
- Irregular stool texture, passing occasional enormous stools/frequent small pellets
- Withholding or straining to stop passage of stools
- Soiling or overflow
- Abdominal pain/distension/discomfort
- General malaise

What are the physiological changes?

If constipation continues over several months without appropriate treatment it can result in the following physical changes:

1. The rectum becomes over full with faeces
2. Diminished sensation of fullness
3. Distension of rectum
4. Dilation of the anus
5. Soiling
6. Megarectum/Megacolon

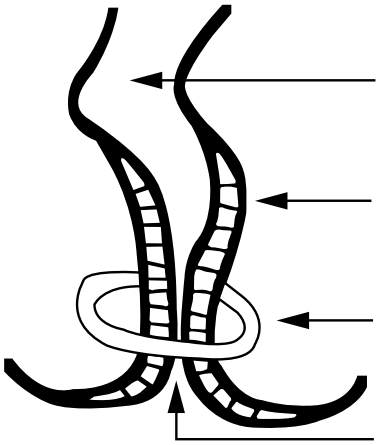
Normally, the rectum is empty. When a stool passes into the rectum a sensation of fullness is experienced. If the stool is not passed and is held too long the rectum adjusts to being stretched and the normal sensations and feelings of urgency to defaecate do not occur. The distended rectum causes dilation of the anus resulting in liquid stool leaking around the solid mass (Soiling). If this condition persists the bowel becomes enlarged, weak and flabby which is defined as Megarectum/Megacolon.

Normal frequency of bowel movements

Age	Bowel motions/week	Bowel motions/day
0-3 months		
Breast fed	5-40	2.9
Bottle fed	5-28	2.0
6-12 months	5-28	1.8
1-3 years	4-21	1.4
more than 3 years	3-14	1.0

Adapted from Fontana et al (1987)

Diagram of the last part of the large Bowel (Graham Clayden)

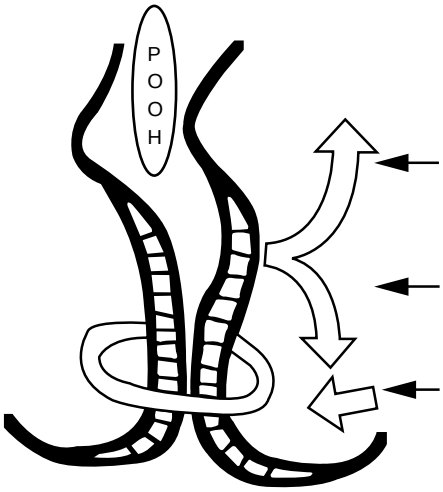


This is the rectum which is nearly always empty.

This is the muscle which works automatically.

This is the muscle you can control yourself.

This is the anus (bottom) where the stool will come out.

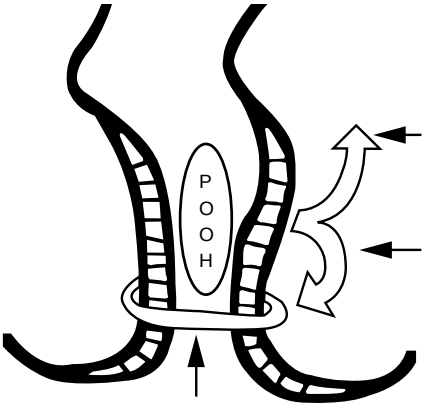


Now a stool has come into the rectum.

A message is sent to you telling you a stool is there and will be wanting to go soon.

Another message goes down to the automatic muscle at the anus telling it to relax a bit.

A message comes back from you to tell the muscle to hold on until you find a loo.



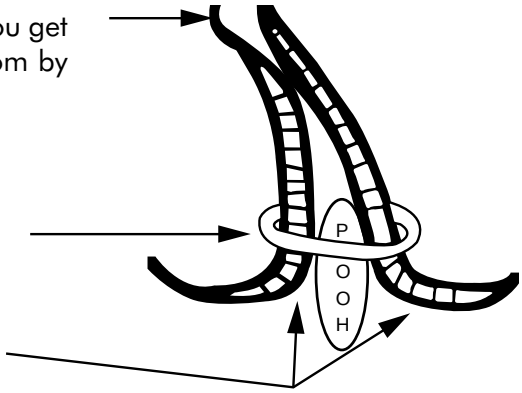
Because the automatic muscle has relaxed a bit, the stool has come lower and the rectum contracts to push it lower still.

More warning messages are sent up to say that the stool is coming out soon.

More messages come down to relax the automatic muscle further.

Your messages to hold on tight with this muscle stop when you find the loo and sit down and relax. (This muscle can only hold on for a short time when the message from the rectum completely relaxes the automatic muscle.)

The rectum contracts and helps push out the stool. You get a feeling that you should push down into your bottom by holding your breath or grunting.

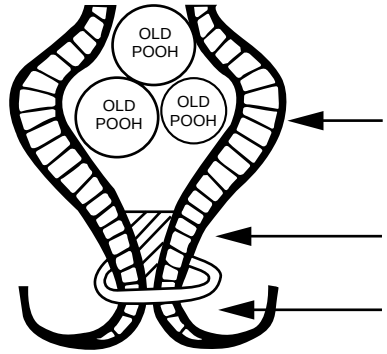


Both the automatic muscle and your controlling muscle are relaxed and the stool comes out easily

These muscles contract afterwards to close the anus again.

Diagram of the last part of the large Bowel in Chronic Constipation

(Graham Clayden)

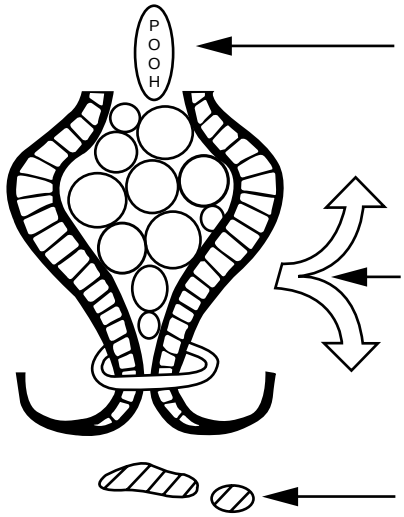


This is the enlarged rectum, pretty full of old stools.

Because it is used to holding heavy stools, the walls are thickened.

There is a little loose stool which passes around the harder stools.

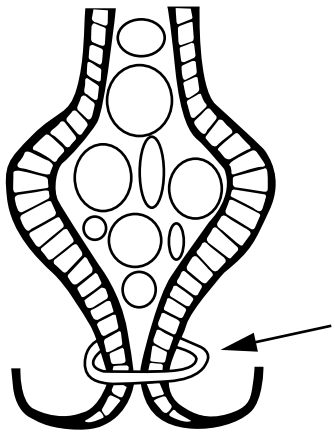
The automatic muscle at the anus is also thickened.



When a new stool comes into the rectum, it is so loaded it doesn't seem to notice its arrival and so no messages are sent up to warn you that another stool has come in.

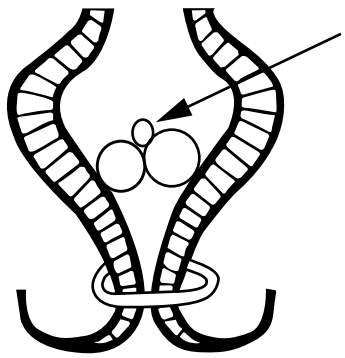
The rectum churns the old stools about and sometimes sends messages up: but it says that the rectum is quite loaded, but it is not urgent. Sometimes a message is sent down to the automatic muscle, which relaxes only enough to let out some of the soft fluid stools. These seep out, without any feeling and stain the pants.

Because no clear messages are coming up from the rectum, this muscle which we can control ourselves does not squeeze and stop the fluid soiling.



After about 1 to 3 weeks, the rectum gets very loaded, then it starts to give messages which often feel like pain in the tummy. Eventually the automatic muscle gets enough message to relax and let out the giant stool.

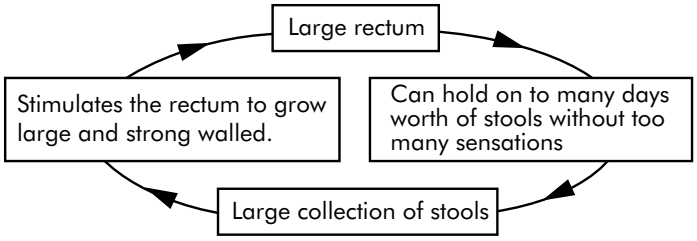
The muscle you can control is eventually unable to stop the large stool coming out and it gets so urgent a rush to the loo is needed.



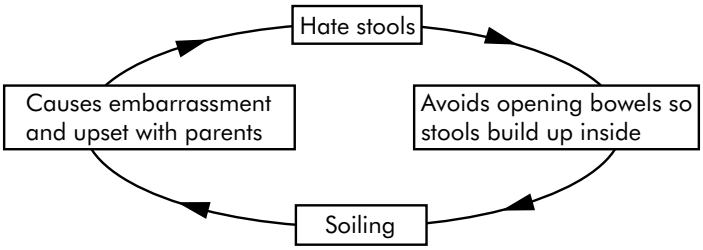
Even after all this, there is still some left, which will be the old stool at the centre of the next giant stool.

The Vicious Circles (Graham Clayden)

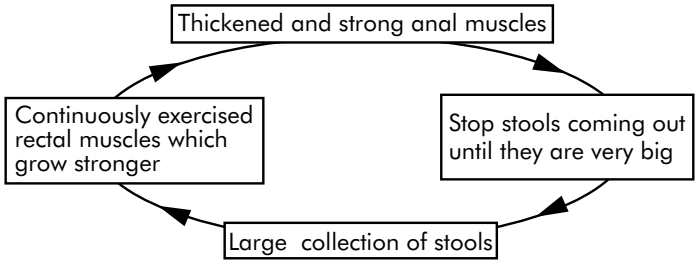
The first vicious circle is that the distended and enlarged rectum allows a large collection of stools, which makes the rectum grow larger and so on:



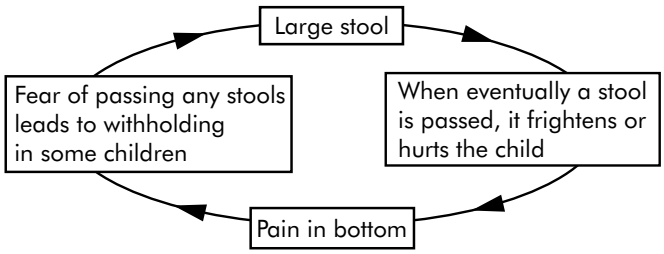
The next vicious circle is that the children who have a dislike of stools (they even dislike the smell of stools, more than children who have not had these problems), so they try as hard as they can not to make stools. This means the stools build up inside and only the fluid, loose stool leaks out. This causes soiling which causes more embarrassment and the child hates stools even more.



Another vicious cycle is that the muscle wall of the rectum becomes thickened when it is persistently loaded (as if it were an athlete doing weight training). The thickening and strengthening of the muscles also involves the automatic muscles of the anus. This means it takes more messages from the rectum to make it relax and, even then, its thickness does not allow the ordinary sized stools to come down easily.

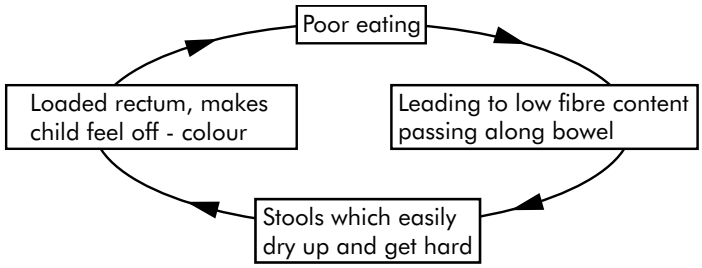


Stool will hurt, and so avoids passing it until it becomes large enough to cause pain:



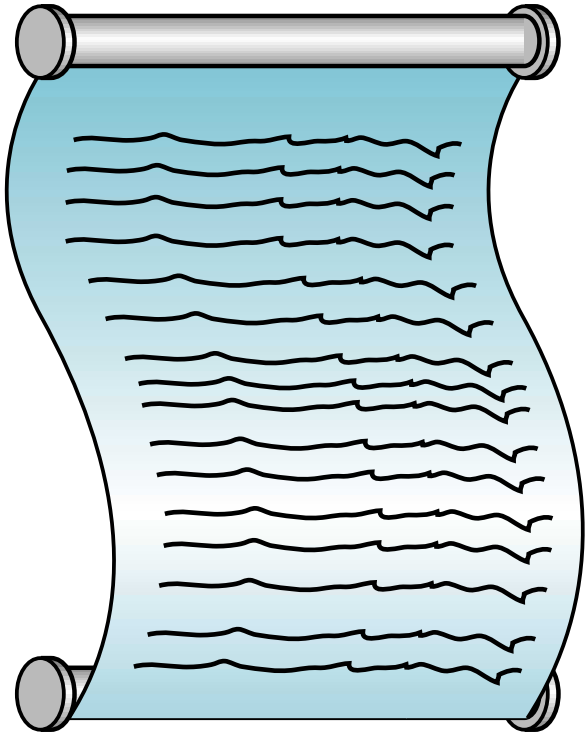
If this becomes a battle area between parent and child, this cycle gets worse.

Another cycle which occurs in chronic constipation is our diet (what we eat).



There are many other circles like these, which happen in some children and not in others. These are often connected with the emotional effects of this difficult problem. Again, we must emphasize that every child is different, and not all these cycles happen in every child.

SECTION 2:
History



General Details

- Age, sex and chief symptoms

Constipation history

- Age of onset
- Frequency and consistency of stools, pain or bleeding with passing stools
- Distension
- Abdominal pain: distribution, frequency, character
- Toilet training (relation of constipation to timing)
- Faecal soiling
- Withholding behaviour
- Change in appetite
- Nausea or vomiting
- Weight loss
- Perianal fissures, dermatitis, abscess or fistula
- Current treatment
- Current diet (24 hour recall history)
- Current medications (for all medical problems) oral, enema, suppository, herbal
- Previous treatment/ medication

Past medical history

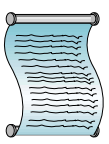
- Gestational age
- Condition at birth
- Time of passage of meconium
- Other medical problems: previous or current
- Hospital admissions
- Immunisations, allergies, operations, growth and developmental history

Family history of significant illnesses

- Gastrointestinal (constipation, Hirschsprung disease)
- Other such as thyroid, parathyroid, cystic fibrosis, coeliac disease

School and family

- Toilet habits at school
- Temperament and interaction with peers
- School performance and absenteeism
- Psychosocial disruption of child or family for example: bereavement, family changes, new baby



SECTION 3:
Physical examination

Physical Examination

General appearance	**Anal inspection** Position Stool present around anus or on clothes Perianal erythema Skin tags, fistulae and fissures
Vital signs Temperature Pulse Respiratory rate Blood pressure	**Rectal examination** Anal wink present/absent Anal tone Faecal mass Presence of stool, stool consistency Other masses Explosive stool on withdrawal of finger Occult blood in stool
Routine systems examination Including: anaemia, clubbing, nodes, ENT, chest, heart etc.	**Back and spine examination** Dimple Tuft of hair
Abdomen Distension Palpable liver, spleen, kidneys Faecal mass palpable per abdomen	**Neurological examination** Tone/strength Deep tendon reflexes

Physical findings distinguishing organic constipation from functional constipation

- Failure to thrive
- Abdominal distension
- Lack of lumbosacral curve
- Sacral dimple covered by tuft of hair
- Midline pigmentary abnormalities of the lower spine
- Sacral agenesis
- Flat buttocks
- Anteriorly displaced anus
- Patulous anus
- Tight, empty rectum in presence of palpable abdominal faecal mass
- Gush of liquid stool and air from rectum on withdrawal of finger
- Occult blood in stool
- Absent anal wink
- Decreased lower extremity tone and/or strength
- Absence or delay in relaxation phase of lower extremity tendon reflexes

SECTION 4:
Differential diagnosis

Nonorganic causes

Developmental
Cognitive disability
Attention-deficit disorders

Situational
Coercive toilet training
Toilet phobia
School toilet avoidance
Excessive parental interventions
Sexual abuse

Depression

Constitutional
Colonic inertia
Genetic predisposition

Reduced stool volume and dryness
Low fibre diet
Dehydration
Underfeeding or malnutrition

Organic causes

Anatomic malformation
Imperforate anus
Anal stenosis
Anterior displaced anus
Pelvic mass (sacral teratoma)

Abnormal abdominal musculature
Prune belly
Gastroschisis
Down syndrome

Metabolic and gastrointestinal
Hypothyroidism
Hypercalcaemia
Hypokalaemia
Cystic fibrosis
Diabetes mellitus
Multiple endocrine neoplasia type 2B
Gluten enteropathy

Connective tissue disorders
Scleroderma
Systemic lupus erythematosus
Ehlers-Danlos syndrome

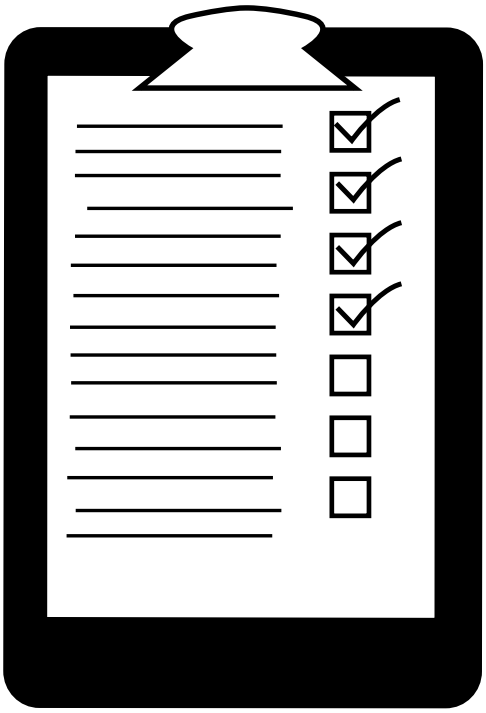
Neuropathic conditions
Spinal cord abnormalities
Spinal cord trauma
Neurofibromatosis
Static encephalopathy
Tethered cord

Drugs
Anaesthetic agents
Antacids (aluminium based)
Anti-diarrhoeals (eg. anti-motility agents)
Anti-hypertensives/anti-arrhythmics (eg. calcium channel blockers)
Anti-cholinergics and sympathomimetics (eg. for bladder dysfunction)
Anti-depressant and anti-psychotics
Anti-seizure medicaiton (NB. Ketogenic diet)
Barium
Minerals: calcium, iron, bismuth
Non-steriods
Opiates

Intestinal nerve or muscle disorders
Hirschsprung disease
Intestinal neuronal dysplasia
Visceral myopathies
Visceral neuropathies

Other
Heavy-metal ingestion (lead, mercury etc)
Vitamin D intoxication
Botulism
Cows Milk Protein Intolerance (CMPI)

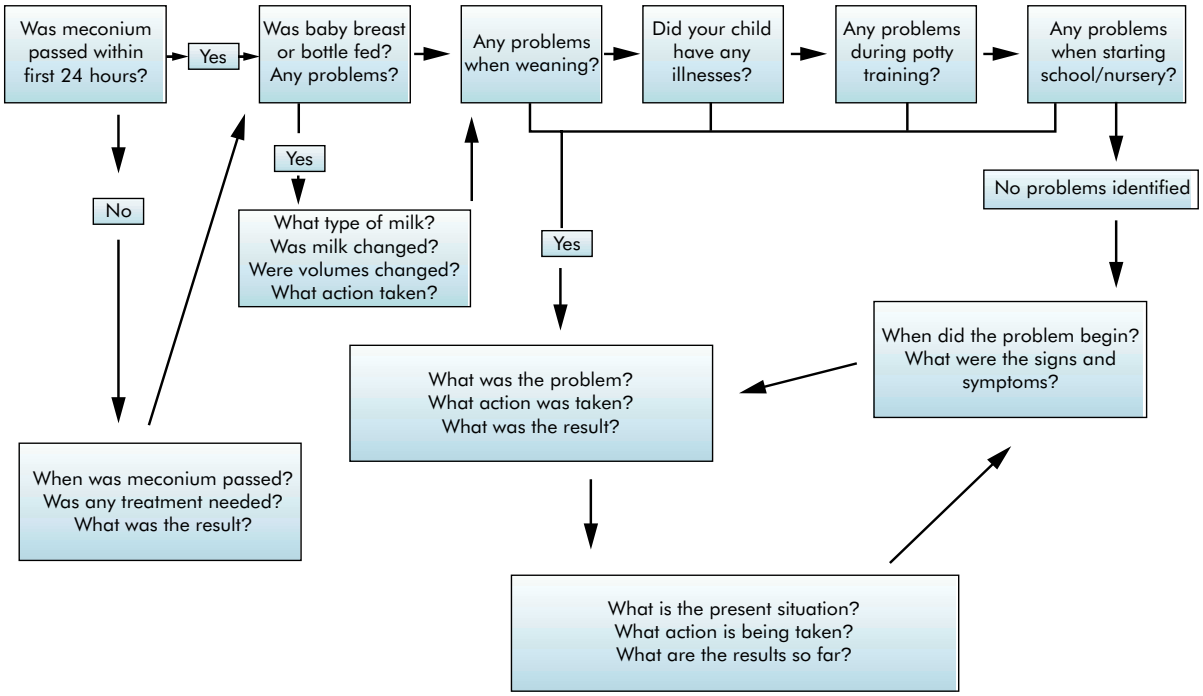
SECTION 5:
Assessment



Assessment of Childhood Idiopathic Constipation

- A detailed history should have been obtained and a physical examination performed by medical staff in order to understand the severity of the condition and plan appropriate management.

- This algorithm illustrates the format of the Childhood Idiopathic Constipation Assessment Tool.



- The next step is to photocopy and complete the Assessment Tool (pages 17-21) for each child presenting with idiopathic constipation.

- The health care professional will negotiate agreed priorities with the child and their family.

- Details of supporting information which is to be used with this assessment can be found on pages 38-39.

- A Diary template to be photocopied is available on pages 22-23 to record ongoing information which is appropriate to individual children and families.

- A copy of the completed assessment must be included should a referral to another agency be indicated.

Childhood Idiopathic Constipation Assessment

NB: Master Copy : Please photocopy this form for each patient.

NAME: **DATE OF BIRTH:**

Has there been a physical examination? Yes No

If YES, When..... By.....

Are there signs & symptoms of another disorder present? Yes No

If YES, Differential Diagnosis: .....

Referred to? .....

Was meconium passed within first 24 hrs? Yes No

If NO When was it passed?.....

Was any treatment needed?.....

What was the result of treatment? .....

Were there any problems with infant feeding? Yes No

What type of milk? .....

Was milk changed? ..... Yes No

How do you prepare feeds (formula:water ratio)? .....

Were volumes changed? Yes No

If YES, What action was taken?.....

What was the result? .....

Any problems when weaning? Yes No

If YES, What was the problem?.....

What action was taken?.....

What was the result? .....

Did your child have any illnesses which may have contributed? Yes No

If YES, What was the problem?.....

What action was taken?.....

What was the result? .....

Did your child have any problems during potty training? Yes No

If YES, What was the problem? .....

What action was taken? .....

What was the result? .....

Any problems when starting nursery/school? Yes No

If YES, What was the problem? .....

What action was taken? .....

What was the result? .....

When did the problem of constipation begin?

What were the signs and symptoms?

What were the problems when constipation began?

What action was taken?

What was the result?

What is the current situation?

What action is being taken?

What are the results so far?

Dietary/Fluid Intake History: Leaflet given - Title: ..... Yes No

Breakfast:

Lunch:

Tea:

Snacks:

Dental health: Leaflet given - Title: ..... Yes No

Dentist:

Cleaning Teeth:

Toileting Routine:

Present Bowel Pattern (see Heaton stool form scale for size and consistency) Type:

.....

A Guide to Stool types and associated Pharmacy Management

Heaton Stool Form Scale			Pharmacy Management
Type 1		Separate hard lumps, like nuts (hard to pass)	Increase Medication See Pharmacy Disimpaction/ Maintenance Guidelines.
Type 2		Sausage-shaped but lumpy	Increase Medication See Pharmacy Disimpaction/ Maintenance Guidelines.
Type 3 ✓		Like a sausage but with cracks on its surface	Optimum Medication Range. Continue Maintenance Dose for 4 weeks then consider reduction guidelines.
Type 4 ✓		Like a sausage or snake, smooth and soft	Optimum Medication Range. Continue Maintenance Dose for 4 weeks then consider reduction guidelines.
Type 5		Soft blobs with clear-cut edges (passed easily)	Reduce Medication See Pharmacy Guidelines Monitor until Types 3-4 reached.
Type 6		Fluffy pieces with ragged edges, a mushy stool	Reduce Medication See Pharmacy Guidelines Monitor until Types 3-4 reached.
Type 7		Watery, no solid pieces ENTIRELY LIQUID	Reduce Medication See Pharmacy Guidelines Monitor until Types 3-4 reached.

Reproduced by kind permission of
Dr KW Heaton, Reader in Medicine at the University of Bristol.
These stool types have not been validated in children and serve as a guide only.

Constipation Steering Group
Royal Hospital for Sick Children
Edinburgh

Medications at present:

Name of Medicine	Route	Dose/Frequency

How are medications taken?

Activity/Exercise: Leaflet given - Title: ..... Yes No

Family concerns/expectations:

Packages of Care:

Assessment completed: Yes No

Assessment Outcomes:

Identified Key Worker: ..... Contact No .....

Agreed Priorities:

Agreed Contact Frequency:

Multi-agency contacts:

Names: ..... Contact No .....

Names: ..... Contact No .....

Names: ..... Contact No .....

DIARY

NAME:

DAYS OF WEEK / Date	MORNING	MIDDAY	EVENING
MONDAY			
TUESDAY			
WEDNESDAY			

DIARY

NAME:

THURSDAY			
FRIDAY			
SATURDAY			
SUNDAY			

SECTION 6:
Pharmacy guidelines

Constipation Disimpaction Guidelines

After an acute constipation episode and disimpaction there may be a need to continue with maintenance therapy for several months until a regular bowel habit is established

FIRST CHOICE: Stimulant Laxatives

SODIUM PICOSULFATE (if able to swallow tablets whole, use Bisacodyl below)

Preparation: 5mg in 5ml liquid (Laxoberal® & Dulco-Lax® Liquid). Sugar-free

Dose: Orally

< 2 years	2.5mg in 2.5mls
2-5 years	5mg in 5mls
5-10 years	10mg in 10mls
> 10 years	10-15mg in 10-15mls

once or twice daily for 2-3 days

OR

BISACODYL (if able to swallow tablets whole)

Preparation: 5mg enteric coated tablets (Dulco-Lax® & non-proprietary)

Dose: Orally

2-5 years	5mg
5-10 years	10mg
>10 years	10-15mg

once or twice daily for 2-3 days

Notes:

- Tablets must be swallowed whole - NOT crushed or chewed
- Avoid indigestion remedies within one hour

Constipation Disimpaction Guidelines (continued)

SECOND CHOICE: Bowel Cleansing Solutions (Hospital Supervision)

MOVICOL®

Iso-osmotic laxative effective in established slow transit constipation used for both disimpaction and maintenance on specialist advice

Preparation: Oral powder containing macrogol '3350' (polyethylene glycol) 13.125g, sodium bicarbonate 178.5mg, sodium chloride 350.7mg, potassium chloride 46.6mg per sachet.

Dose: Orally

2-5 years	1/2 sachet	daily	increased up to 3 sachets daily or reduced according to response
5-11 years	1 sachet	daily	

Administration:

- Dissolve the contents of ONE sachet in 125mls water
- Drink required proportion (as above) within 6 hours of preparation
- Discard any remaining liquid

Notes:

- Not licensed in children
- Lemon and lime flavoured
- One sachet in 125ml water contains: 65mmol/L sodium; 53mmol/L chloride; 5.4mmol/L potassium; 17mmol/L bicarbonate

OR

KLEAN-PREP®

Preparation: Oral powder containing polyethylene glycol 59g, anhydrous sodium sulphate 5.685g, sodium bicarbonate 1.685g, sodium chloride 1.465g, potassium chloride 743mg per sachet. Contains aspartame and vanilla flavour.

Dose: Orally or via nasogastric tube
20-25ml/kg/hour for 4-6 hours (Max. 4 litres over 4-6 hours)

Administration:

- Add the contents of ONE sachet to ONE litre water at a time
- Older children/adults may sip every 10-15minutes or use nasogastric tube
- Domperidone 400-500microgram/kg (Max. 20mg) can be given 20-30 minutes before KleanPrep®.
- Maintain low residue diet

Notes:

- Not licensed in children less than 20kg and not licensed for constipation
- One sachet reconstituted with 1 litre water contains -125mmol/L sodium; 1Ommol/L potassium; 40mmol/L sulphate; 35mmol/L chloride; 20mmol/L bicarbonate

OR

Constipation Disimpaction Guidelines (continued)

PICOLAX®

Preparation: Oral powder containing 10mg Sodium Picosulfate (with magnesium citrate formed in solution) per sachet. Sugar-free

Dose: Orally

1-2 years	1/4 sachet
2-5 years	1/2 sachet
>5 years	1 sachet

as single dose, repeated if required after 6 hours

Administration:

- Dissolve contents of ONE sachet in about 25ml (1 fl oz) water
- The solution will become hot
- After 5 minutes dilute to 150ml (1/4 pint) with water
- Swallow required proportion (see above)
- Maintain liberal intake of clear fluid for at least 3 hours

Note:

- Not licensed for constipation

OR

CITRAMAG®

Preparation: Oral powder containing magnesium carbonate 11.57g, anhydrous citric acid 17.79g per sachet.

Dose: Orally

5-9 years	1/3 sachet
10-12 years	1/2 sachet
> 12 years	1 sachet

as single dose, repeated if required after 6 hours

Administration:

- Pour 200ml (7 fl oz) of hot water into a container
- Add contents of ONE sachet
- Stir thoroughly and **allow to cool**
- Once cooled, drink required proportion (see above) over 15-30 minutes
- Maintain low residue diet and clear fluid intake during treatment

Notes:

- Not licensed in children under 5 years and not licensed for constipation
- Lemon and lime flavoured

Constipation Maintenance Guidelines

For uncomplicated constipation, first line therapy should be dietary manipulation with increased fibre and fluid intake

FIRST CHOICE: Lactulose AND either senna OR sodium picosulfate

LACTULOSE Osmotic laxative used in combination with senna or sodium picosulfate

Preparation: 3.1-3.7g in 5ml solution (depending on brand) sucrose-free but not sugar free - see notes below

Starting dose: Orally	< 1 year	2.5ml	twice daily*	Increase dose to suit child. Maximum dose (>1 year old) 90mls/day.
	1-5 years	5ml	twice daily*	
	5-10 years	10ml	twice daily*	
	> 10 years	15ml	twice daily*	

Administration:

- ***Avoid** giving at bedtime. Lactulose is less cariogenic than sucrose but doses should be timed to be given **with meals** to reduce risk of dental caries
- Lactulose may be diluted with water or fruit juice/squash

Notes:

- Regular oral treatment required, may take up to 48-72 hours to act
- Lactulose is not absorbed from the gastrointestinal tract but will provide approximately 1 kcal per ml, therefore, is unlikely to affect control of diabetes, unless taken in large quantities
- Contains impurities of galactose and lactose. Avoid in galactosaemia and use with caution in children with lactose intolerance

SENNA Stimulant laxative used in combination with lactulose

Preparations: 7.5mg tablets (sennoside B) (Sennokot®)
7.5mg in 5ml syrup (sennosides B) (Sennokot®)

Dose: Orally	1 month-2 years	0.5ml/kg	once daily preferably in morning
	2-6 years	2.5-5mls	
	> 6 years	5-10mls or 1-2 tablets	

Doses can be increased in severe constipation (seldom >25 ml)

Notes:

- Syrup contains 3.3g sucrose in 5ml and 7% v/v alcohol
- Not licensed under 2 years

OR

Constipation Maintenance Guidelines (continued)

SODIUM PICOSULFATE **Stimulant laxative used in combination with lactulose OR liquid paraffin**

Preparation: 5mg in 5ml liquid (Laxoberal® & Dulco-Lax® Liquid). Sugar-free

Dose: Orally

< 2 years	2.5mg in 2.5mls	once or twice daily
2-5 years	5mg in 5mls	
5-10 years	10mg in 10mls	
> 10 years	10-15mg in 10-15mls	

SECOND CHOICE: Liquid Paraffin OR Docusate Sodium

PARAFFIN, LIQUID **Faecal softening laxative used in children unresponsive to high doses of lactulose and stimulant**

Preparation: Liquid Paraffin BP (NOT Liquid Paraffin Oral Emulsion)

Starting Dose: Orally > 18 months 1ml/kg single evening dose (see below)

Increased up to 3ml/kg (Max 90ml) per day if required

Administration:

- Do **NOT** give within an hour of bedtime
- Best given after evening meal
- Mix with frozen yoghurt or ice cream and store in refrigerator to improve palatability

Notes:

- Do **NOT** give to children under 18 months of age
- Do **NOT** give to children with impaired swallowing (eg reflux or neurodevelopmentally delayed children)
- Do **NOT** give with Docusate Sodium
- **NOT** licensed in children under 3 years
- Lipoid pneumonia reported following aspiration of liquid paraffin
- Excessive ingestion can result in anal seepage and irritation
- Prolonged use can result in impaired absorption of fat soluble vitamins (A,D,E & K) but studies show this is unusual (Clark et al 1987)

OR

Constipation Maintenance Guidelines (continued)

DOCUSATE SODIUM **Faecal softening and stimulant laxative used as an alternative in children unable to take liquid paraffin**

Preparations:
100mg capsules (Dioctyl®)

12.5mg in 5ml paediatric solution (Docusol®) sugar-free, mandarin & grapefruit flavoured

50mg in 5ml adult solution (Docusol®) sugar-free, herbmint flavoured

Dose: Orally

All ages	2.5mg/kg	}	two or three times daily
OR			
1 month-1 year	12.5mg	}	two or three times daily
1-4 years	12.5-25mg		
5-12 years	25-50mg		
> 12 years	100mg		

Notes:

- Regular oral treatment required for 1-3 days before stools soften
- Used as an alternative to liquid paraffin
- Should **not** be used concurrently with liquid paraffin
- Liquid may be diluted with milk or squash to mask taste

THIRD CHOICE: **Movicol**

MOVICOL® **See Disimpaction Guidelines (page 25)**

Constipation Reducing Medication Guidelines

Once the optimum dose of medication has been reached which has enabled a regular bowel pattern to be achieved, it is necessary to continue with this dose unchanged for a period of time to ensure that progress is maintained, probably around 2 - 4 weeks.

It is important that medication is not stopped suddenly, or the dose drastically reduced but that a gradual weaning process is used until medication is discontinued.

The amount and frequency of the reduction in medication will vary between individuals and should be guided by frequency and consistency of stools (Heaton Stool Form Scale – Type 3-4).

When a combination of stool softeners and stimulants are used, one medication should be reduced and discontinued at a time. Ideally the stimulant should be stopped first, although the softener may require to be adjusted if stools are excessively soft and problematic.

In many cases a long period of time is required to reduce medications successfully. In some instances this may take up to two years.

SECTION 7:
Principles, pitfalls, packages & problems

Principles and Contracts of Care

Professional

- To be empathetic regarding the diagnosis of idiopathic constipation
- To explain diagnosis and management options in appropriate language
- To offer sufficient ongoing support ensuring reinforcement of knowledge
- To review and evaluate the management plan within agreed timescales
- To liaise with appropriate professionals for additional input as required

Family

- To gain an understanding of the diagnosis and management options
- To ask questions clarifying issues raised and information given
- To negotiate support mechanisms that they require
- To participate in the management plan agreed
- To contact Key Worker as agreed

Pitfalls

- Missing other causes of constipation and not giving the diagnosis of idiopathic constipation equal credence
- Using stimulant laxitives before disimpacting, softening and evacuating stool
- Not appreciating the role fear plays in young children's perception of their condition
- Attempting to alter or stop medication too soon
- Being as disappointed and frustrated as the family and resorting to inconsistent management
- Insufficient support for families especially with complex treatment regimes
- Working in isolation without sharing and accepting expertise that other professionals can offer

Clayden (1996)

Packages of Care

Support

1. Recognition and understanding of the families perception of the problem
2. Give emotional support and encourage family commitment through all stages of management
3. Appoint a Key Worker for the family
4. Ensure the family have a contact number available
5. Health Education
   - Personal Child Health Record
   - Infant Feeding
   - Healthy Eating
   - Dental Health
   - Activity
   - Constipation in Childhood
6. Negotiate regular contact with the family (may require at least weekly contact initially): home visiting and telephone support

Liaison

Collaboration with multi-disciplinary/multi-agency professionals involved to ensure all are aware of the current management

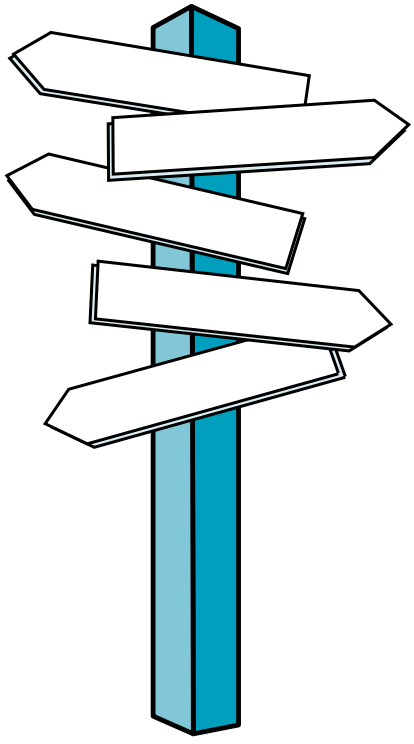
Management

- Referral
- Assessment
- Key Worker to plan management of care with child/family (Diary Template - Page 22-23)
- Implementation of packages of care
- Key Worker to negotiate management of choice following pharmacy maintenance guidelines
- Key Worker to ensure signed prescription obtained to include agreed range of medication doses
- Active evaluation in partnership with the family to achieve desired outcomes

Problem Solving

Problem Identified	Cause	Solution
Resistance from the family	Previous experience Ineffective management	Assessment Information Support Education
Resistance from the individual	Fear Power Pain/discomfort	Explanation Patience Support Referral to Child and Family Mental Health
Lack of understanding and Myths (Anatomy & Physiology, length of time, drug therapy, not taking medications)	Incomplete information Learning difficulties Age of child	Reiterate information in a form most suitable for the family and child
Non empathetic approach by professionals	Lack of understanding of the impact on family life	Professional education in constipation management Multi-disciplinary working
Frustration/lack of motivation due to slow progress	Not tailoring treatment to the individual	Re-evaluate treatment programme Initiate individual management plan
Lack of progress	Chaotic lifestyle Low self esteem Bullying Family dynamics Non compliance	Reassessment of Individual treatment plan Review support mechanisms Utilise education package and reinforce individual requirements Multi-disciplinary problem solving approaches: school, nurseries, counselling, social services, incontinence supply
Inadequate dietary/ fluid intake	Lack of knowledge Family dynamics: social/ financial/cultural Refusal	Implement "Support Package" including health education tools
Maintaining regular contact	Lack of understanding Lack of motivation Family dynamics: social/financial Chaotic lifestyle	Negotiate contract of care Revisit "Packages of care" If appropriate liaise with referrer
Refusal to go to toilet Withholding	External influences: school toilets, housing Physical influences: anal fissure, pain/discomfort, nutritional intake, medications not taken	Liaise with school nurse ensuring adequate preparation of child at school: toilet roll, continence supply Liaise with Social Worker/Housing departments Reiterate information
Behavioural Difficulties	Core emotional distress	Referral to Child and Family Mental Health - Consultation Clinic

SECTION 8:
Referral criteria



Surgical

1. Pain and bleeding on defaecation
2. A visible anal fissure
3. A history of delay in passing meconium in excess of 24 hours
4. A combination of failure to thrive, abdominal distension and vomiting in a constipated patient

Medical

1. When initial pathway management is unsuccessful, having used the recommended treatment regimen(s) and a further opinion is warranted
2. When organic constipation is suspected (having reviewed history and examination)

Gastroenterology

1. When initial pathway management is unsuccessful, having used the recommended treatment regime(s) and a further opinion is warranted
2. When organic constipation is suspected (having reviewed the history and examination)

BUT, IN ADDITION

3. When management may require further tests (such as bloodwork, X-ray for transit marker or contrast studies, or consideration of rectal suction biopsy) or assessment prior to referral for other intervention (psychology/psychiatry)

Dietetics

1. Family motivation and enthusiasm
2. Previous input from health professionals regarding diet

Complementary Therapies Service

Referral criteria for children with idiopathic constipation

All formal referrals should be made to complementary therapies nurse specialist with a copy forwarded to child's consultant paediatrician. Advice regarding the use of complementary interventions and potential referrals can be discussed with service co-ordinator as required.

- Children must have had a comprehensive medical assessment
- Diagnosis of idiopathic constipation
- Doctor with clinical responsibility for child must be aware of the referral
- Early referral is recommended
- Children must have had disimpaction treatment if required

Children's Community Nursing

- Childhood idiopathic constipation guidelines management is unsuccessful
- Further specialist assessment and management is required
- Excluding those that fulfil surgical and medical referral criteria
- Referral to include:

1. Diagnosis of idiopathic constipation
2. Physical examination by medical staff
3. Childhood Idiopathic Constipation Assessment Tool completed
4. Written referral including:
   Name address and date of birth
   GP name and address
   Past medical history
   Management to date
   Any contributing medical condition
5. Age 0-13 years

Child and Family Mental Health

1. Referral to Child and Family Mental health service should not be a first option for children presenting with constipation/encopresis.
2. Referral to Child and Family Mental health Service would be after all appropriate medical or surgical investigations have been completed.
3. When organic causes of constipation/soiling have been ruled out.
4. When the child is disimpacted successfully and currently on a maintenance programme.
5. When the body is physically capable of responding to sensation and behavioural techniques.
6. When a significant period of conservative medical management has not brought about the desired change.
7. It is identified that there are mental health issues, and/or complex family issues and/or additional behavioural difficulties which are impeding progress, and the family are in a position to carry out an intensive behavioural programme.
8. If it is felt appropriate that a case should be considered for referral to Child and Family Mental health Service, the Consultation Clinic or other pre-arranged forum, should be used in the first instance.

Discharge Guidelines

- The child is passing stools easily, with no pain or soiling

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- Medications for constipation have been discontinued

↓

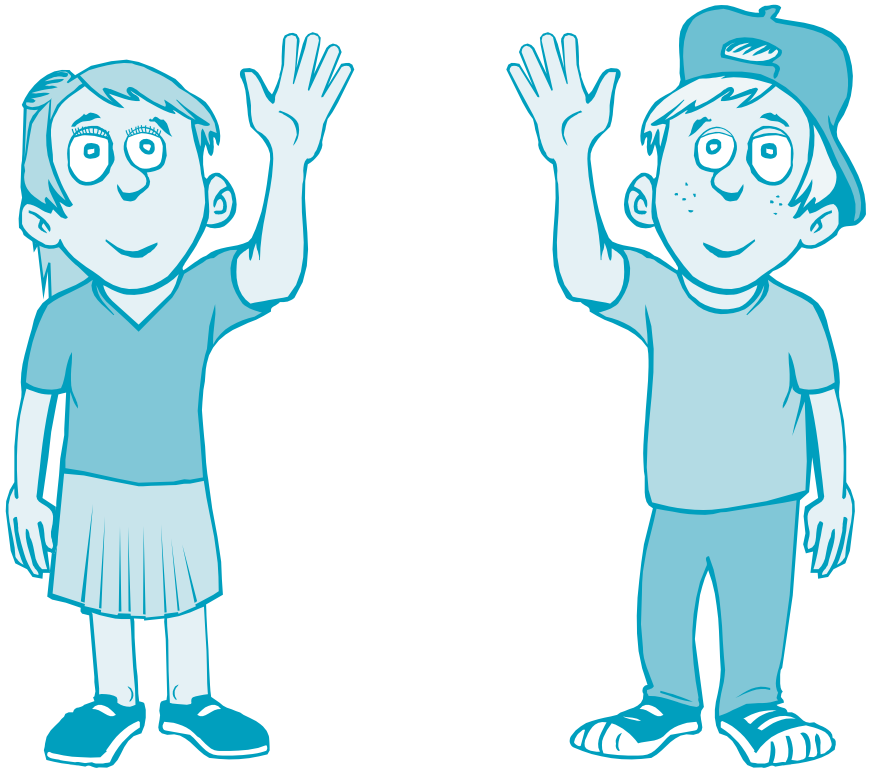
- Family recognises child's individual contributing factors

↓

- Family and child require no further follow up

↓

- Family are aware of means to self refer to key worker



OTHER AVAILABLE LEAFLETS

Where to get these leaflets

1. **Artie Beat Leaflet** – available from British Heart Foundation (see contact details below)

2. **Constipation, your questions answered** - available from The Royal Hospital for Sick Children (see contact details below)

3. **Artie Beat Club** – available from the British Heart Foundation (see contact details below)

4. **Breastfeeding, Helpful Hints** – available from Health Education Board for Scotland (see contact details below)

5. **10 Healthy Eating Tips for Kids** – available from European Federation of The Associations of Dieticians and the European Food Information Council

6. **Artie Beat's fruit and veg 5-a-day record book** – available from the British Heart Foundation (see contact details below)

7. **SHINE, the Young Person's Guide to Healthy Teeth and Gums** – available from Health Education Board for Scotland (see contact details below)

8. **From Milk to Family Meals** – available from Health Education Board for Scotland (see contact details below)

9. **Intake** – available from the British Heart Foundation (see contact details below)

10. **Hassle Free Food** – available from Health Education Board for Scotland (see contact details below)

11. **Healthy Eating** – available from Lothian Health Promotion

The Royal Hospital for Sick Children

Sciennes Road

Edinburgh

EH9 1LF

Tel 0131 536 0373/0374

British Heart Foundation

14 Fitzhardinge Street

London

W1H 6DH

Tel. 020 7935 0185

www.bhf.org.uk

Health Education Board for Scotland (HEBS)

Woodburn House

Canaan Lane

Edinburgh

EH10 4SG

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