Constipation and Faecal incontinence in Children

Every article has it's own definition and different cultures have their own ideas about what constipation is.
How can we standardize: ROME IV Criteria should be used, together with Bristol stools chart.
ROME IV Criteria

1. Infrequent defecation (less than twice/week)
2. History of excessive stool retention
3. Painful bowel movement
4. Rectal impaction / abdominal mass
5. Large stools which may obstruct toilet
6. Incontinence of stools at least once per week

Bristol Stools Chart: Let child and parents demonstrate what stools looks like:

TYPE	**What it looks like**	**Description**
Type 1	Rabbit droppings	Separate hard lumps, like nuts (hard to pass)
Type 2	Bunch of grapes	Sausage-shaped but lumpy
Type 3	Corn on the cob	Like a sausage but with cracks on its surface
Type 4	Sausage	Like a sausage or snake, smooth and soft
Type 5	Chicken nuggets	Soft blobs with clear cut edges (passed easily)
Type 6	Porridge	Fluffy pieces with ragged edges, a mushy stool
Type 7	Gravy	Watery, no solid pieces, entirely liquid

Type 1-3 = constipation
Type 4,5 = normal
Type 6,7 = loose stools

Fecal incontinence
The term encopresis is not used any more.
Standardization of terms by ICCS (International Children's Continence Society)

2 Types of Faecal Incontinence

Functional	Retentive: constipation with impaction and overflow incontinence 82% of our patients Non-retentive: mostly emotional causes
Organic causes	Congenital ano-rectal malformation Post-Surgery eg sacral teratoma, spinal surgery Spinal cord dysfunction eg spina bifida, mielomeningocoele

Etiology of constipation

1. *Functional*
   Diet low in fibre
   Low liquid intake
   Lack of colon discipline
   Lack of exercise
   Unavailability of toilets
   Psychological factors
   Side-effect of medication

2. *Anatomical*
   Anal stenosis
   Anorectal malformation
   Hirschsprung's disease
   Voluntary inhibition of defecation
   Megarectum

3. *Neuromuscular*
   Spina bifida/meningocoele
   Paraplegia
   Absence of abdominal muscle eg Prune Belly
   Cerebral palsy
   Hypotonia eg Down's syndrome

4. *Metabolic Disorders*
   Hypothyroidism

How to evaluate a child with constipation

Three components:

i) Careful history
ii) Physical examination
iii) Plain abdominal X-rays

HISTORY

Duration of the problem: Did it start at birth, was meconium delayed?
Did it start after specific event? Weaning from the breast
Introduction of solids
'Potty training'
Starting nursery school / new school / environment
Does the child always need medicine/enema to pass stools (this is a red flag)
How long is interval between passing stools?
Does the child have fecal soiling
Complete dietary / fluid intake history – or refer to dietician
Not good enough to ask: do you have healthy diet?
List of previous medication and how did child respond
Does child have any other diseases or use medication regularly

PHYSICAL EXAMINATION

General appearance
Abdomen
Anal inspection
Rectal examination
Back and spinal examination

RADIOLOGY

Plain abdominal x-ray (controversial to do this as a routine)

FURTHER EVALUATION

- Minority of children need further investigations – indicated if there ***are any red flags*** Eg distended abdomen, failure to thrive
- If no red flags, diagnosis is *functional constipation.* Treat the impaction with oral/rectal medication and do regular follow-up. If not responding, start evaluation from beginning.
- Anatomical causes such as anal stenosis should proceed to surgical intervention

Special investigations (indicated when there are red flags)

- Contrast enema
- Rectal biopsy
- Anorectal manometry
- Inpatient observation and evaluation
- Transit time

Treatment of Constipation
Disimpaction
Adjust the diet (high fibre diet, limit carbohydrates, exclude excessive sugars), refer to dietician
Fecal softeners (eg: liquid paraffin, look up the dose/kilogram) and purgatives (eg: senna once weekly for 2 to 3 weeks if patient older than 2 years) when necessary
Good bowel habits (patient must develop a daily constant routine)
Education of parents/family
Regular follow-up and support

Management of Incontinence (functional)
A well organized precise plan

- Evaluation
- Disimpaction – an empty bowel cannot soil!
- High fibre diet and water (1 cup or 250ml per 10kg body weight/day)
- Daily routine
- Education of family – incontinence is not due to misbehaviour/ constipation must be explained
- Psychological evaluation and emotional support
- Regular follow-up

Disimpaction
Bowel needs to be cleaned thoroughly for treatment plan to be successful.
Oral medication

- Picolax/ Colo-Prep/ Golitely/ Klean Prep/ Pegicol
- Purgatives: Senekot/ Soflax – not for daily use
- Faecal softeners: mineral oil(Liquid paraffin)

Rectal Medication

- Bowel wash-out with Saline
- Daily enema
- Glycerine suppositories

Diet

- Exclude excessive intake of cane sugar
- Add plain fibre to food
- Encourage intake of food high in fibre eg brown bread, vegetables, fruit, oats, popcorn, lentils
- Replace all drinks with water

Maintenance therapy for constipation and incontinence

- High fibre diet
- Adequate water
- Daily bowel routine
- Regular follow-up – wean slowly from medicine
  Re-evaluate if no improvement

Conclusion
Constipation and faecal incontinence is common and has a good prognosis if treated appropriately