Current Rome IV criteria for functional gastrointestinal diseases

Symptom-based diagnostic criteria for functional gastrointestinal diseases (FGID) were first presented at an international gastroenterology congress in 1988 in Rome. Since then, the experts get together in Rome to adapt the criteria for FGIDs to the current state of knowledge.

1994 Rome I: Diagnosis criteria published as a book
1999 Rome II: Specific, standardised criteria for FGIDs in children
2006 Rome III: New knowledge integrated regarding FGIDs in children
2016 Rome IV: New definition of FGID = Disorders of Gut-Brain Interaction (DGBI)

NEW at Rome IV:
- Proposal for new name: Disorders of Gut-Brain Interaction (DGBI)
- Special chapter on Pain incorporated in ROME IV
- New diagnostic criteria for infantile colic and constipation

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New name for FGID

Rome IV proposes the term “Disorders of Gut-Brain Interaction” (DGBI = Disorders of Gut-Brain Interaction) for FGIDs.1

Reasoning:

- Term “functional” is non-specific and stigmatising.1
- Gut-brain interactions play an important role in the onset of symptoms.1,2

Gut-brain axis


Pain as a new topic

Pain is an important component in FGID of babies / toddlers

- Low pain threshold in early life
- Babies feel painful stimuli more intensely than older children

In the long run, a newborn’s pain experiences can permanently alter pain processing functional abdominal pain in later life.

No suitable methods for assessing the intensity of pain are available so far for infants and toddlers.
### Rome IV FGID-diagnoses in children under 4 years of age

#### Functional bowel disease in children <4 years of age

<table>
<thead>
<tr>
<th>Condition</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burping and vomiting (Regurgitation)</td>
<td>Regurgitation must be present. Both points must be met in otherwise healthy infants (age 3 weeks – 12 months).</td>
</tr>
<tr>
<td>Rumination</td>
<td>Vomiting ≥ twice a day for ≥ 3 weeks, no choking, no disease symptoms (e.g. blood in spit, aspiration, failure to thrive [FTT], difficulty in swallowing or feeding)</td>
</tr>
<tr>
<td>Infantile colic</td>
<td>Prolonged periods of crying, restlessness or irritability without apparent cause, no signs of failure to thrive (FTT), fever or illness</td>
</tr>
<tr>
<td>Infant dyschezia</td>
<td>No additional criteria required.</td>
</tr>
<tr>
<td>Syndrome of cyclical vomiting</td>
<td>No additional criteria required.</td>
</tr>
<tr>
<td>Functional diarrhea</td>
<td>No additional criteria required.</td>
</tr>
<tr>
<td>Functional constipation</td>
<td>No additional criteria required.</td>
</tr>
</tbody>
</table>

#### Vomiting/ spitting and infantile colic are most common in young infants


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### Regurgitation

- **No change of diagnostic criteria**

Both points must be met in otherwise healthy infants (age 3 weeks – 12 months).

- Vomiting ≥ twice a day for ≥ 3 weeks
- No choking, no disease symptoms (e.g. blood in spit, aspiration, failure to thrive [FTT], difficulty in swallowing or feeding)

### Infantile colic/Cry baby

- **New diagnostic criteria for infantile colic**
  - Age < 5 months when the symptoms begin and disappear
  - Prolonged periods of crying, restlessness or irritability without apparent cause
  - No signs of failure to thrive (FTT), fever or illness

The modified Wessel-criteria used in Rome III do no longer apply.

### Functional constipation

- **Rome IV distinguishes between children who are potty-trained and those who are not**

Diagnosis must include at least 2 of the symptoms in < 4 year old children in 1 month:

- 2 stools or less per week
- Excessive stool passage in the case history
- Hard stools and pain during bowel movements
- Large stool diameter
- Large amount of stool in the rectum

Additional criteria for children who are potty trained:

- Incontinence at least once a week
- The diameter of the stool should be large enough to clog the toilet
Summary:
The refined ROME IV diagnostic criteria aim to improve care for infants and toddlers. At the same time, these criteria should allow for a more uniform research basis for future studies.

Pediatrician-recommended diet for FGID

Based on: Prospective observational study in 111 private paediatric practices in France with > 800 not / not fully breastfed infants under 5 months with ≥1 FGID

- **Symptom-targeting infant formula (baby food)**
  - prescribed by most paediatricians
  - nearly all recommended diets contained probiotics (L. reuteri)

- **Acidified and partially hydrolysed infant formula**
  - 35% of all recommended diets each

- **For vomiting**
  - High-content AR infant formula / 100 ml prescribed by about 52% of paediatricians, 77% of prescribed diets

- **For infantile colic**
  - Low-lactose infant formula and probiotics prescribed for 56% of affected infants

- **For constipation**
  - Acidified low-lactose infant formula and probiotics – 79% of recommended diets

Sources

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