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# CRITERIA TO EVALUATE NEUROGENIC BOWEL IN CHILDREN WITH CONGENITAL ZIKA SYNDROME

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**1** Works for me [dx.doi.org/10.17504/protocols.io.bd6xi9fn](https://dx.doi.org/10.17504/protocols.io.bd6xi9fn)

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## ABSTRACT

Children with Congenital Zika Syndrome (CZS) have structural alterations on cortical level which can compromise urinary and digestive systems integrity, becoming them susceptible to develop bowel and bladder dysfunctions. However, although there are already much evidence of bladder dysfunction on this population, still there are not researches that address specifically bowel dysfunction on children with CZS. Thus, a research protocol was developed based in our experience on neurogenic bowel treatment in children. After approval by the ethics committee the protocol was tested during bowel function assessment of microcephaly by CZS patients admitted for ambulatory follow-up on Rehabilitation Specialized Center of Anita Garibaldi Center of Education and Research in Health (CEPS) from July to December of 2019. The protocol of bowel function evaluation followed Rome IV Criteria for children and adolescents, applied through clinical anamnesis and physical examination, Bristol Stool Scale of classification based in symptoms for bowel functional disturbs and rectal ampoule ultrasound. So far, neurogenic bowel was confirmed on 90% of assessed patients. Our findings reveal new data about the subject, increasing the need of additional researches that deepen scientific knowledge about multiple repercussions of CZS.

## ATTACHMENTS

[Protocol - neurogenic bowel CZS.pdf](#)

## GUIDELINES

**Protocol recommendation:** refer all children with congenital Zika syndrome to bowel function assessment, according to the following:

- 1 Initial Assessment:**  
It must contain detailed clinical history, describing bowel habits, including continence, water intake and diet type, current medications and any special regimen for bowel emptying, as well as frequency of bowel emptying and stool characteristics.
- 2 Bristol Stool Scale:**  
It is recommended the use of Bristol Stool Scale, which consist of a measure of visual classification that helps patients reporting feces consistency. It aims to evaluate, from descriptive ways, fecal content shapes using pictures which represent seven types of feces, according to its shapes and consistency (MARTINEZ, 2012).

### 3 Rome IV Criteria

1. To assess gastrointestinal function it is recommended the use of Rome IV Criteria, which are the most updated guideline for diagnosis of functional constipation in children. Reduction from two to one month of symptoms duration, regarding Rome III criteria, search for harmonize with guideline developed in 2014. Rome Criteria are widely used to standardize diagnosis of constipation, mainly at researches.

#### 3.1 2. For children from 0 to 4 years old, it is recommended the following criteria:

- Two or fewer defecations per week;
- History of excessive stool retention;
- Retentive posturing;
- History of hard or painful bowel movements;
- Presence of fecal mass in the rectum.

### 4 Ultrasound

1. It is recommended the measurement of Rectal Diameter (RD) by abdominal ultrasound for evaluation of constipation and fecal impaction.
2.  $RD \geq 2,9$  it's compatible with bowel constipation, as evidenced by JOENSSON *et al.* (2008) and BURGERS *et al.* (2013).

### Follow-up

#### 5 Follow-up:

1. Parents must be oriented as for the realization of behavioral treatment for evacuation.
2. Clinical reevaluation each two or three months, depending on the response to treatment.



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