

Management of rotavirus diarrhea in children

1ST CLINICAL EVIDENCE OF A FAVORABLE IMPACT OF *BACILLUS CLAUSII* ON IMMUNE MARKERS¹

An INDEPENDENT clinical study: Smiyan OI *et al.* Wiad Lek 2019;72(7):1320-1323

Rotavirus infection (RVI) & Kids



- Leading cause of **acute gastroenteritis**
- **Over 100 million people** affected each year



Protection from rotavirus is ensured by **cellular and humoral immunity**



Lack of data on improvement of immune markers by standard therapy



65 children with RVI

[+ 28 healthy children (control group)]



Standard treatment*



B. clausii* + standard treatment

Methodology

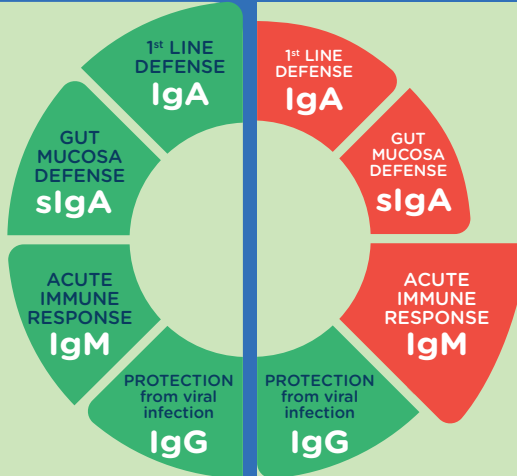
Endpoints

- Immune markers
- Clinical manifestations

Normal levels of immune markers



Immune markers protect from RVI,
and the development of clinical manifestations



Muted immune response



Decrease in IgA levels due to slow «immunological start» and/or poor adhesion of RVI
Increase in IgM levels due to activation of acute immune response

Normalization of serum immune markers**

IgA

sIgA

IgM

IgG

Significantly better impact

Bacillus clausii

0.86 g/l

30.32 g/l

0.79 g/l

9.11 g/l

standard treatment

0.71 g/l (p<0.001)

27.10 g/l (p<0.001)

1.03 g/l (p<0.001)

9.32 g/l (p>0.05)

control group

0.82 g/l (p>0.05)

31.18 g/l (p>0.05)

0.73 g/l (p>0.05)

7.96 g/l (p>0.05)

Reduction of clinical symptoms***†

Diarrhea

-1.13 days
(p<0.001)

General weakness

-1.17 days
(p<0.001)

Fever

-0.52 days
(p<0.05)

Vomiting

-0.6 days
(p<0.001)

Bacillus clausii facilitates **faster recovery** from RVI and **helps in normalization of immune markers**, contributing to **protect** kids against future infections

Enterogermina®
BACILLUS CLAUSII

WORLD'S N° 1 PROBIOTIC[§]

§ from Nicholas Hall's global OTC database 2018, DB6

RVI: Rotavirus infection; **Ig:** immunoglobulin; * Sorbents, rehydration therapy;

** After treatment during reconvalescence period (Day 5-6); *** With *Bacillus clausii* + standard therapy vs standard therapy;

† Including abdominal pain, skin pallor and appetite disturbance.

1. Smiyan OI, *et al.* Optimization of the treatment of rotavirus infection in children by using *Bacillus clausii*. Wiad Lek 2019;72(7):1320-1323.

SANOFI