Limosilactobacillus reuteri ATCC PTA 5289 and DSM 17938 as adjuvants to improve evolution of pharyngitis/tonsillitis in children: randomised controlled trial

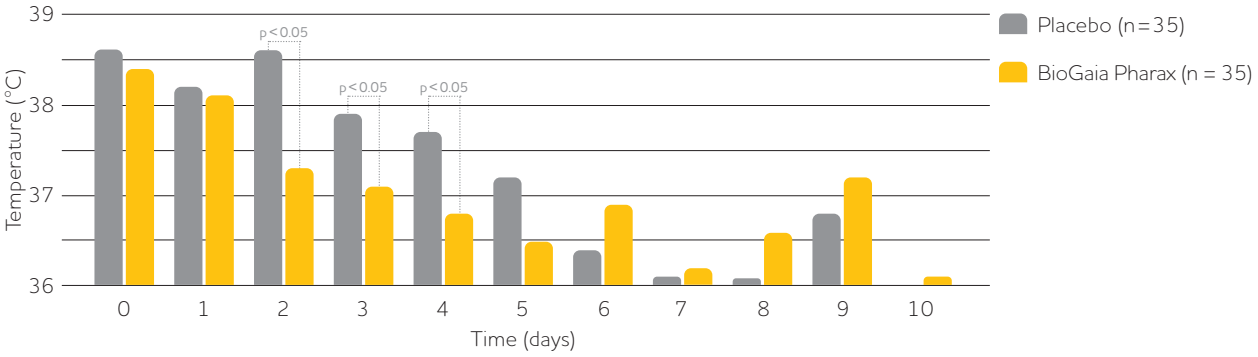
Maya-Barrios A, Lira-Hernandez K, Jiménez-Escobar I, Hernández L, Ortiz-Hernandez A, Jiménez- Gutiérrez C, López-Velázquez G and Gutiérrez-Castrellón P Beneficial Microbes, 2021; online

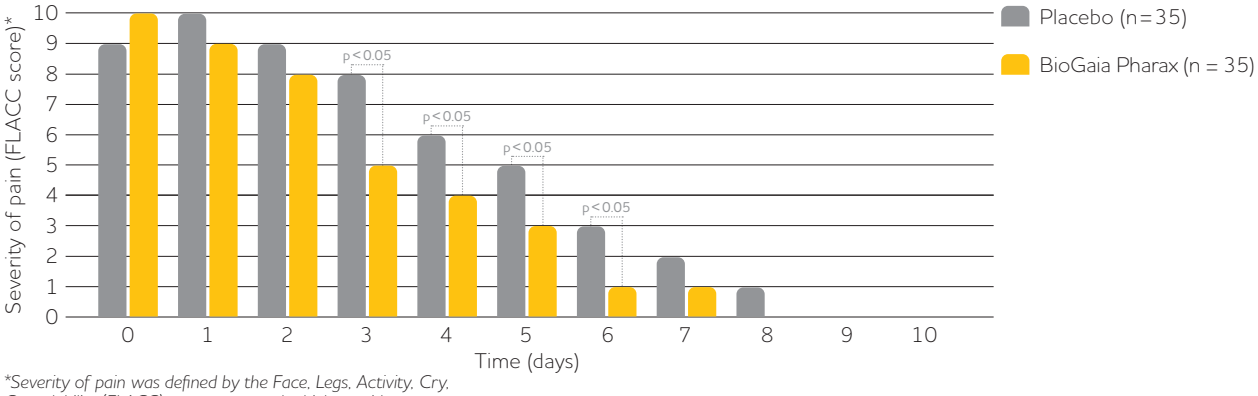
Demonstrates that *L. reuteri* ATCC PTA 5289 combined with *L. reuteri* DSM 17938 (Pharax) is a safe and effective adjunct to reduce the symptoms of pharyngitis and/or tonsillitis in children

RESULTS

The supplement containing L. reuteri ATCC PTA 5289 and L. reuteri DSM 17938 gave a significant reduction in

- Duration of symptoms
- Severity of sore throat
- Rhinorrhea
- Nasal congestion
- Days with fever
- Days with visit to the doctor
- Average cost per child
- TNF-α





**Severity of pain was defined by the Face, Legs, Activity, Cry, Consolability (FLACC) assessment tool which provid a score for evaluation of severity of pain (sore throat).*

CONCLUSION

Supplementation with drops containing L. reuteri ATCC PTA 5289 + L. reuteri DSM 17938 is:

- a safe and effective way to reduce the duration and severity of clinical symptoms in children with pharyngitis and/or tonsillitis
- associated with a reduction of costs, which is especially important when considering the high prevalence of pharyngitis and tonsillitis in children < 5y

Due to anti-inflammatory effects of the strain combination, the duration of fever and intensity of sore throat is reduced.

Please turn over for further reading

STUDY HIGHLIGHTS
Acute Respiratory infections

FACTS

- Study design: Prospective, randomized, double blind and placebo-controlled
- Subjects: 70 children, 6 months to 5 years
- Dosage: $4x10^8$CFU/day, 5 drops given twice daily or placebo drops
- Duration: 10 days
- Primary endpoints: Duration of upper respiratory symptoms & severity of sore throat
- Secondary endpoints: Frequency of rhinorrhea, cough episodes, nasal congestion, snoring episodes, sleep disturbances, days with fever, number of children receiving antibiotic treatment; total number of days for antibiotic use, number of visits to medical office or emergency department; days of absence from day care centre; frequency of adverse events; aetiology of respiratory infection and change in salivary inflammatory biomarkers

FURTHER READING

- Gutierrez-Castrellon, P., Lopez-Velazquez, G., Diaz-Garcia, L., Jimenez- Gutierrez, C., Mancilla-Ramirez, J., Estevez-Jimenez, J. and Parra, M., 2014. Diarrhea in preschool children and *Lactobacillus reuteri*: a randomized controlled trial. Pediatrics 133: e904-9.
- Pilmann-Laursen, R. and Hojsak, I., 2018. Probiotics for respiratory tract infections in children attending day care centre. a systematic review. European Journal of Pediatrics 177: 979-994. https://doi. org/10.1007/s00431-018-3167-1
- Weizman, Z., Asli, G. and Alsheikh, A., 2005. Effect of a probiotic infant formula on infections in child care centres: comparison of two probiotic agents. Pediatrics 115: 5-9. https://doi.org/10.1542/ peds.2004-0845

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