



Probiotic Research Update July 2023

Labinic reduces NEC and feed intolerance in preterm babies.

Sowden M et al. Effect of a Multi-Strain Probiotic on the Incidence and Severity of Necrotizing Enterocolitis and Feeding Intolerances in Preterm Neonates. *Nutrients*. 2022 Aug 12;14(16):3305

A double-blind placebo controlled study was conducted in 200 preterm babies between 750-1500g using Labinic drops administered for 28 days. This research was part of another trial investigating the effect of Labinic on carriage of antibiotic resistant organisms in the GI tract. No babies in the group receiving Labinic drops developed NEC, compared to 5 babies in the placebo group. The Labinic treated group achieved full feeds sooner, had less feed intolerance diagnosed, and were less likely to be nil by mouth or to receive parenteral nutrition, all these were statistically significant.

Comment:

This study shows, in a prospective blinded study, that Labinic drops are not only safe but may be effective in reducing the incidence of NEC. The full text link is [here](#)

Labinic significantly improves growth and feed intolerance in preterm babies.

Sowden M et al. Effect of a Multi-Strain Probiotic on Growth and Time to Reach Full Feeds in Preterm Neonates. *Nutrients*. 2022 Nov 3;14(21):4658

More data from the same double-blind placebo controlled study in 200 preterm babies using Labinic drops administered for 28 days. This research was part of another trial investigating the effect of Labinic on carriage of antibiotic resistant organisms in the GI tract. The group receiving Labinic drops showed a significantly greater weight and length gain, as well as better head circumference growth during the study period. This is attributed to early initiation and improved tolerance of enteral feeds.

Comment:

This paper shows, in a prospective blinded study, that Labinic drops are not only safe but are effective in promoting growth through improved feed tolerance. The full text link is [here](#)

** DISCLAIMER: This brief review was produced for Biofloratech Ltd who manufacture, and supply, Labinic Drops, a multispecies liquid probiotic food supplement. This review is written in technical language and is only intended for professional use. The content is not intended to advertise nor to describe any health claim for Labinic Drops, and all words including "probiotic" are used purely in their scientific WHO-approved forms. The purpose of the review is to stimulate discussion, debate and formulate research questions for the future. www.biofloratech.com



Labinic significantly reduces carriage of Antibiotic Resistant Gram negative bacteria in the GI tract of preterm babies.

Sowden M et al. Impact of a multi-strain probiotic administration on peri-rectal colonization with drug-resistant Gram-negative bacteria in preterm neonates. Front Pediatr. 2022 Nov 2;10:1002762

This is the principal study in this research, investigating the effect of administration of Labinic drops in neonates on the carriage of drug resistant Gram-negative bacteria, a major global health problem, in a double-blind placebo controlled study in 200 preterm infants.

The primary outcome was acquisition/colonisation of the gut by 14 days with ESBL and/or Carbapenem resistant Gram negative bacteria (GNB).

Babies in both groups showed equal acquisition rates of about 13-15% by 72 hours after birth, reflecting maternal vertical transmission or environmental routes.

Babies receiving Labinic had significant reduction in colonisation at 7 and 14 days; this showed as an OR of 0.24 ($p < 0.001$) compared to placebo at day 14. The effect was more pronounced in the most preterm babies.

Comment:

This study shows, in a prospective blinded study, that Labinic drops are not only safe but are effective in reducing the carriage of antibiotic resistant bacteria. The implications for this important public health problem is significant. The full text link is [here](#)

The PrePOP study

Corbett G et al. PrePOP Study. Presentation at RCOG World Congress 2023

A placebo controlled double blind study to see if a multistrain Lactobacillus probiotic supplement can reduce the risk of preterm birth

Corbett et al announce the PrePOP study of 150 women at high risk of preterm delivery, with a primary outcome of detection of *L. crispatus* in the vaginal microbiome, after 12 weeks of exposure.

Depletion of this probiotic has been linked to the risk of preterm birth.

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Comment:

This is an interesting development. Manipulation of the vaginal microbiome may be one factor in reducing preterm labour. However a [Cochrane review in 2018](#) did not indicate any effect on reduction in preterm labour, nor benefits to infants, but the general quality of the research in the review was poor.

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Reversing the effects of early life exposure to antibiotics

Borbet TC et al. Disruption of the early-life microbiota alters Peyer’s patch development and germinal center formation in gastrointestinal-associated lymphoid tissue-associated lymphoid tissue. iScience 2023 26(6):106810

The timing of the impact of antibiotics on the maturing microbiome and immune system is the focus of this mouse-based research paper. Amoxicillin or azithromycin exposure caused Peyer’s patch abnormalities and reduction of IgA production, which was more pronounced in younger mice. B. longum appeared to be protective and able to restore function.

Comment:

This adds to the body of evidence that probiotics not only can prevent some disease processes, but can improve poor immunological or other functions. Full link [here](#)

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This update was commissioned by Biofloratech Ltd, who manufacture Labinic® Drops, a liquid multi-strain probiotic containing Lactobacillus acidophilus, Bifidobacterium infantis and Bifidobacterium bifidum in a total daily recommended dose of 2 billion cfu/day. Labinic is manufactured to stringent high-quality control standards in a GMP manufacturing licenced pharmacy.

Labinic has an excellent safety profile and is widely used in NHS (UK) and overseas neonatal units.

We are pleased to see further evidence of its use emerging in clinical papers and we confirm that we have had no influence over any publications describing its use.

Thank you for reading this update, we hope you found it interesting. Please feel free to share with healthcare and other professional colleagues.

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