



## Acceptability and adherence to different administration regimens of a multi-strain probiotic in adults under antibiotic treatment: a randomized, open-label clinical trial

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## Administration of a multi-strain probiotic in adults under antibiotic treatment

- Zero cases of antibiotic-associated diarrhoea in 40 adults
- Improved self-reported abdominal pain
- Improved fatigue and quality of life
- Higher dose (2 sachets/day) yielded superior gains in global health utility



### Introduction

- Antibiotics disrupt the gut microbiota and cause AAD
- Aim: test the efficacy, tolerability and acceptability of multi-strain probiotic Vivomixx neo® 460 (by Mendes S.A.) in adults undergoing antibiotic therapy
- Dose-response effects, intestinal function and quality of life assessed



### Methods

- Randomised, open-label trial
- 40 adults undergoing antibiotic therapy (amoxicillin-clavulanate, clindamycin and second or third generation cephalosporins)
- 1:1 to 1 or 2 sachets/day
- Antibiotic course + 7 days (max 17 days)
- Daily BSS; GSRS, WHOQOL-BREF, EQ-5D-5L, CFQ



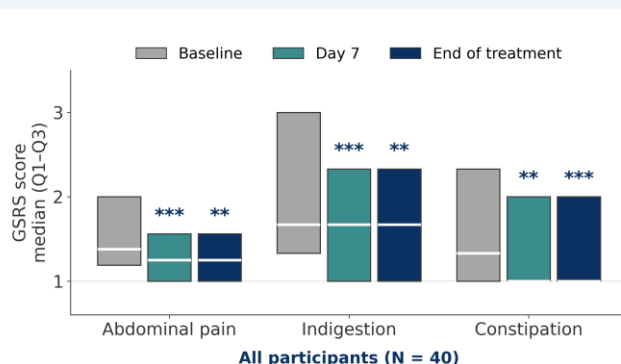
### Conclusion / Highlights

- Safe, well tolerated, well accepted
- Zero antibiotic-associated diarrhoea
- Stool consistency remained stable
- Less abdominal pain, indigestion, constipation
- Less fatigue; improved QoL
- 2 sachets/day gained most in health utility

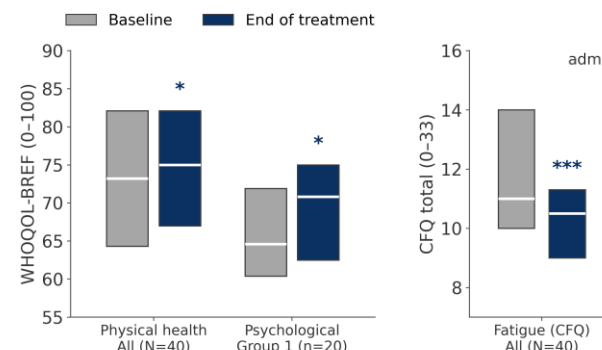


### Results

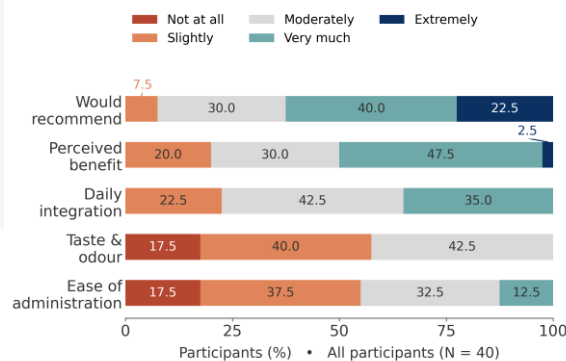
- 70.0% women; median age: 40.5 years, IQR: 31.8–56.3
- Adherence 98.6% — no serious adverse events, no withdrawals
- No antibiotic-associated diarrhoea, no loose stools (BSS > 5); stool consistency stayed stable throughout
- Group 2 (2 sachets/day) showed superior overall health utility gains (EQ-5D-5L,  $p = 0.038$ )



GSRS: 1 = no discomfort, 7 = very severe discomfort. Median (Q1-Q3). \*\* $p < 0.01$  \*\*\* $p < 0.001$  vs baseline (Friedman, Durbin-Conover)



Median (Q1-Q3). Higher WHOQOL = better QoL; higher CFQ = more fatigue. Group 1 = 1 sachet/day. \* $p < 0.05$  \*\*\* $p < 0.001$  vs baseline (Friedman, Durbin-Conover)



92.5% would moderately, very much or extremely recommend probiotic use; nobody rated recommendation of daily use "not at all"

### References

1. Kim SK, et al. J Microbiol Biotechnol 2019;29:1335–40.
2. Bradley E, Haran J. Gut Microbes 2024;16:2359677.
3. Nuriel-Ohayon M, et al. Front Microbiol 2016;7:1031.

Abbreviations: AAD, antibiotic-associated diarrhoea; BSS, Bristol Stool Scale; CFQ, Chalder Fatigue Questionnaire; EQ-5D-5L, EuroQol 5-Dimension 5-Level questionnaire; GSRS, Gastrointestinal Symptom Rating Scale; QoL, quality of life; Q1-Q3, interquartile range; WHOQOL-BREF, World Health Organization Quality of Life-BREF.



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