

Boosting Immunity of Cow's Milk Protein Allergy Infants with *Synbiotics*

Infants with Cows' Milk Protein Allergy (CMPA) often have an altered gut microbiota compared to healthy breastfed infants¹⁻³ and are more susceptible to infections.⁴⁻⁶ This microbial dysbiosis may negatively affect the development of an infant's immune system.³

Neocate Syneo is the only amino acid formula with synbiotics (AAF+Syneo) able to rebalance the gut microbiota of infants with CMPA making it more like that of a healthy breastfed infant.^{3,7,8,9}



Synbiotics support the growth and establishment of beneficial Bifidobacteria.^{9,11}

Neocate Syneo helps rebalance gut microbiota with **fewer reported infections & antibiotic usage.**⁹⁻¹¹

PROBIOTICS
Bifidobacteria Breve M-16V

PREBIOTICS

Short- and long-chain fructo-oligosaccharides (scFOS/lcFOS) in a ratio of 9:1

&

PRESTO TRIAL

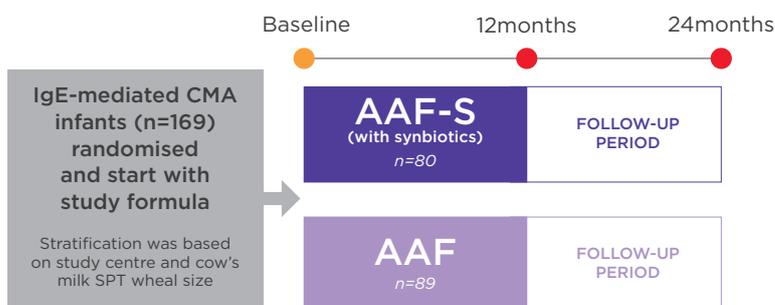
The first RCT to investigate the trajectory of CMP tolerance development and safety of **AAF+Syneo**. Infants < 13 months with confirmed IgE-mediated CMPA, were randomised to receive **AAF+Syneo** (n=80) or AAF (n=89) for 12 months, with a 2-year follow-up. The study was conducted at 20 sites in Germany, Italy, Singapore, Thailand, the United Kingdom, and the United States of America.

Results

AAF+Syneo is SAFE & SUITABLE for the dietary management of infants with IgE-mediated CMPA, who develop tolerance to Cows' milk protein at a similar trajectory compared to interventions with different hypoallergenic formulas and those without synbiotics.^{1,9}

AAF+Syneo is effective in managing allergy symptoms, promoting normal growth and a healthy gut microbiome.¹⁰

Double-Blind Randomised Controlled Trial Design



During the study adverse events and serious adverse events were collected.

AAF: Amino-acid based formula

CMA: Cow's milk allergy

SPT: Skin prick test

● Open food challenge or anaphylactic history

● Double-blind placebo controlled food challenge

Tolerance Development

There were **no significant differences** at 12 and 24 months in percentages of infants who developed tolerance.

	12 months	24 months
AAF-S (with synbiotics)	45%	64%
AAF	52%	59%

- **Half of all infants** became tolerant to cow's milk at 12 months. An additional 13% developed tolerance at 24 months. Numbers are in line with reported tolerance development trajectory.
- During the 12 months intervention, fewer infants hospitalised due to serious adverse events categorised as infections (9% vs 20% in AAF; p=0.036).

Infants have fewer infections, less medication use, and fewer hospital admissions with AAF+Syneo.⁹⁻¹¹

SUMMARY OF CLINICAL STUDY RESULTS IN NEOCATE SYNEO

SAFETY AND EFFICACY

Growth, safety & hypoallergenicity were demonstrated in infants with IgE or non-IgE mediated CMPA.^{3,7,8,10,12}



GUT MICROBIOTA

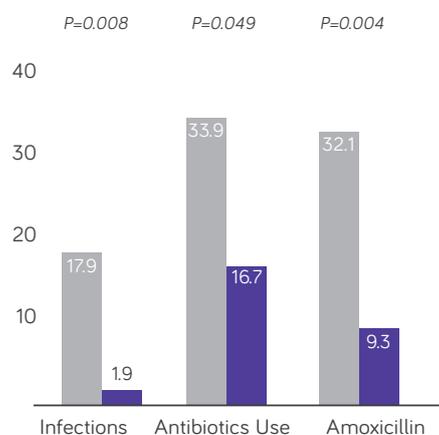
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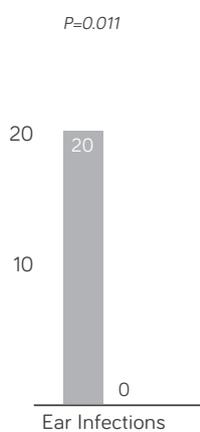
IMMUNE SYSTEM

Gut bacteria closer to that of healthy breastfed infants, with increased levels of Bifidobacteria and reduced levels of clostridial groups.^{9,10}

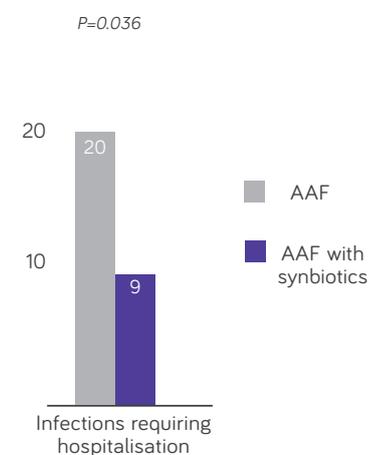
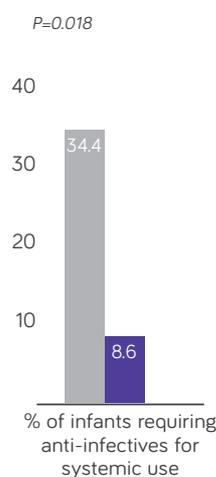
INFECTION OUTCOMES



Fewer infections and use of antibacterial for systemic use⁷



Fewer ear infections and use of anti-infectives^{3,8}



Fewer infections requiring hospitalisation¹⁰

Syneo will help transform the dietary management of Cow's Milk Protein Allergy, strengthening the immune system via modulation of the gut microbiota.^{9,10}

¹ Canani RB, et al. ISME J. 2016;10(3):742-750.

² Thompson-Chagoyan OC, et al. Pediatr Allergy Immunol. 2010;21(2p2):e394-e400.

³ Candy DCA, et al. Pediatr Res. 2018;83(3):677-686.

⁴ Woicka-Kolejwa, Katarzyna, et al. Advances in Dermatology and Allergology/Postępy Dermatologii i Alergologii, 33(2), 109-113

⁵ Fiocchi A, Knol J, Koletzko S, O'Mahony L, Papadopoulos NG, Salminen S, Szajewska H, Nowak-Węgrzyn A. Early-Life Respiratory Infections in Infants with Cow's Milk Allergy: An Expert Opinion on the Available Evidence and Recommendations for Future Research. Nutrients. 2021; 13(11):3795. <https://doi.org/10.3390/nu13113795>

⁶ Sorensen, K, Meyer, R, Grimshaw, KE, Cawood, AL, Acosta-Mena, D, Stratton, RJ. The clinical burden of cow's milk allergy in early childhood: a retrospective cohort study. Immun Inflamm Dis. 2022; 10:e572. [doi:10.1002/iid3.572](https://doi.org/10.1002/iid3.572)

⁷ Burks AW, et al. Pediatr Allergy Immunol. 2015;26(4):316-322.

⁸ Fox AT, et al. Clin Transl Allergy. 2019;9(1):5. 8. Schouten B et al. J Nutr. 2009;139:1398-403.

⁹ Sorensen K, Cawood AL, Gibson GR, Cooke LH, Stratton RJ. Amino Acid Formula Containing Synbiotics in Infants with Cow's Milk Protein Allergy: A Systematic Review and Meta-Analysis. Nutrients. 2021 Mar 14;13(3):935. [doi: 10.3390/nu13030935](https://doi.org/10.3390/nu13030935). PMID: 33799379; PMCID: PMC7998621.

¹⁰ Chatchatee P, et al. J Allergy Clin Immunol. 2021;S0091-6749(21):010538.

¹¹ Sorensen, K.; Cawood, A.L.; Cooke, L.H.; Acosta-Mena, D.; Stratton, R.J. The use of an Amino Acid Formula Containing Synbiotics in Infants with Cow's Milk Protein Allergy-Effect on Clinical Outcomes. Nutrients 2021, 12, 2205. <https://doi.org/10.3390/nu13072205>

¹² Harvey, B. M., Langford, J. E., Harthoorn, L. F., Gillman, S. A., Green, T. D., Schwartz, R. H., & Burks, A. W. (2014). Effects on growth and tolerance and hypoallergenicity of an amino acid-based formula with synbiotics. Pediatric research, 75(2), 343-351. <https://doi.org/10.1038/pr.2013.211>

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