

Insights into the Role of an Amino Acid Formula Containing Synbiotics in the Clinical Management of Infants with Cow's Milk Protein Allergy



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With an estimated prevalence of 2-5% across Europe, cow's milk protein allergy (CMPA) is a common food allergy amongst infants.^{1,2} The allergic reaction varies in severity and can manifest as gastrointestinal, respiratory, dermatological and cardiac symptoms.³ The management of these symptoms presents a significant financial burden to healthcare services,⁴ and negatively impacts the quality of life of the affected families.⁵

Background

Avoidance of cow's milk protein is the cornerstone of treatment, which can be achieved by exclusively breastfeeding. If breastfeeding is not possible, formula-fed infants are typically prescribed a hypoallergenic formula (HAF).^{3,6} Guidelines recommend the use of an extensively hydrolysed formula (eHF) first line, with an amino acid formula (AAF) recommended for infants with more severe CMPA and when symptoms are unresolved, or faltering growth is observed, with an eHF.^{3,6}

Prebiotics and probiotics are naturally present in breastmilk and support the development of a healthy gut microbiota.^{7,8} Infants with CMPA often present with gut dysbiosis,⁹ which has been linked to the pathogenesis of the condition and an increased risk of developing other allergies later in life.^{10,11} Therefore, modification of the gut microbiome has been proposed as a therapeutic target in CMPA.¹²

The addition of synbiotics (a combination of synergistic pre- and probiotics) to AAF has been demonstrated to improve the gut microbiome of infants with CMPA, bringing it closer to that of a healthy, breastfed infant.¹²⁻¹⁶ This may account for the reduction in infections and medication usage that has been observed in infants with CMPA fed an AAF containing synbiotics (AAF-Syn) compared to those fed an AAF without synbiotics.¹⁶ Importantly, such benefits are observed in addition to the successful resolution of CMPA symptoms and adequate growth.¹²⁻¹⁶

To explore the experiences of using AAF-Syn in a real-world setting, parents of infants with CMPA, as well as dietitians and GPs with recent experiences of using AAF-Syn in the UK, were invited to complete a survey. This article summarises the findings and their relevance for the clinical management of CMPA.

“100% of HCPs would recommend the use of AAF-Syn to other HCPs and 90% would consider this formula as their first line choice of AAF in the future.”

Results of the survey with healthcare professionals (HCPs)

Twenty HCPs completed the survey, comprised of 10 dietitians and 10 GPs who use an AAF-Syn (Neocate Syneo®, Nutricia) in their clinical management of infants with CMPA. The data from the GPs and dietitians did not substantially differ and therefore have been analysed as one sample of HCPs.

Common reasons for choosing an AAF-Syn over an AAF without synbiotics was a belief that AAF-Syn promotes a healthier gut microbiome (65%) and is well accepted by infants (55%). Upon initiation of AAF-Syn, 100% of HCPs reported an improvement in overall, dermatological, and gastrointestinal (GI) symptoms and 67% noticed an improvement in respiratory symptoms. This resolution of symptoms was likely a contributing factor to the improved quality of life of infants and their families, which was observed by 100% of HCPs.

‘Effective, increased parent satisfaction and quick resolution of symptoms.’ (GP)

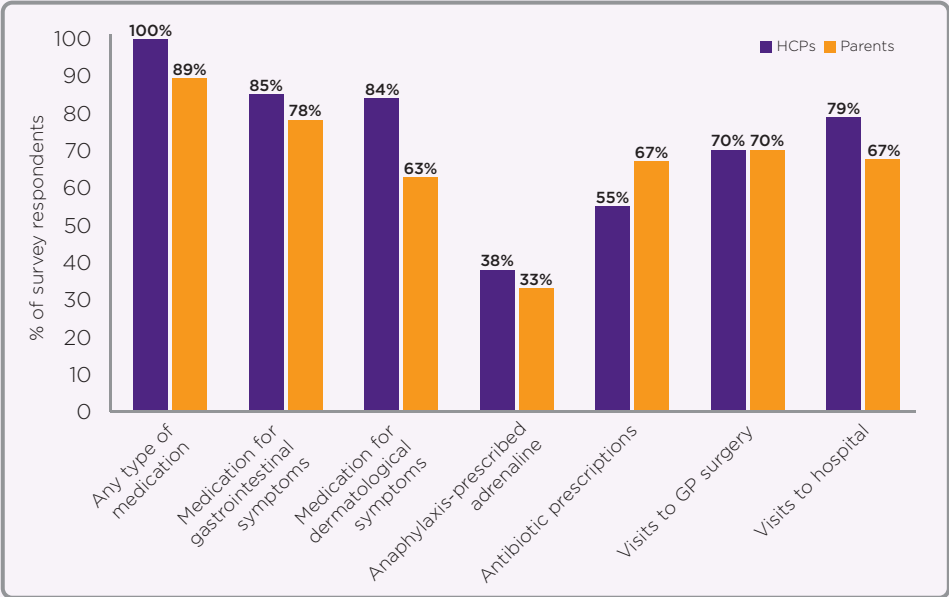
All the surveyed HCPs reported that the infants' symptom improvement was accompanied by a reduction in the need for one or more types of medication to manage CMPA (Figure 1). This was most apparent for medications to treat GI and dermatological symptoms, with 85% and 84% of HCPs observing a reduction in the need for these medications, respectively (Figure 1). Over half of the surveyed HCPs (55%) also reported a reduction in the number of antibiotic prescriptions required by infants. This is likely related to the reduction in one or more types of infections (GI, ear and respiratory) observed by 75% of the HCPs.

‘Well tolerated, liked by parents and less associated infections.’ (GP)

An important implication of these findings is a reduction in the number of GP surgery and hospital visits required by infants, which was observed by 70 and 79% of the HCPs, respectively (Figure 1). As visits to the hospital and GP surgery contribute a significant proportion of the healthcare costs associated with the treatment of CMPA,⁴ this finding has potentially important financial implications. Due to these clinical benefits, 75% of HCPs reported that the use of AAF-Syn had made their management of CMPA easier. Accordingly, 100% of HCPs would recommend the use of AAF-Syn to other HCPs (Figure 2) and 90% would consider this formula as their first-line choice of AAF in the future.

‘Improving gut flora should be part of our management [of CMPA]’ (Dietitian)

Figure 1: Percentage of HCPs and parents who observed a reduction in healthcare usage amongst infants with CMPA following initiation of AAF-Syn*



*HCPs who answered always, often or sometimes and parents who answered yes; respondents who answered not applicable were excluded from the analysis.

Results of the survey with parents

Ten parents of infants who had recently been prescribed an AAF-Syn (Neocate Syneo®, Nutricia) for the management of CMPA completed the survey.

In line with the findings of the survey with HCPs, all parents reported an improvement in one or more of their child's CMPA symptoms. Improvements in GI and dermatological symptoms were most common, each observed by 90% of parents. Parents were also asked about their child's sleep, which was reported to have improved by 70% of parents. These findings are reflected in the improved quality of life of the child and family reported by 100% of parents.

'It's given us a better life every day.' (parent of child prescribed AAF-Syn)

Amongst parents of infants who had previously required medication to treat CMPA symptoms, 89% observed a reduction in the need for one or more types of medication. Similarly, most of these parents (89%) reported a reduction in the number of infections (GI, ear and respiratory) experienced by their child. As observed by the HCPs, this translated into the children requiring fewer trips to the GP surgery or hospital (Figure 1).

'Great overall benefits which improve day to day wellbeing.'
(parent of child prescribed AAF-Syn)

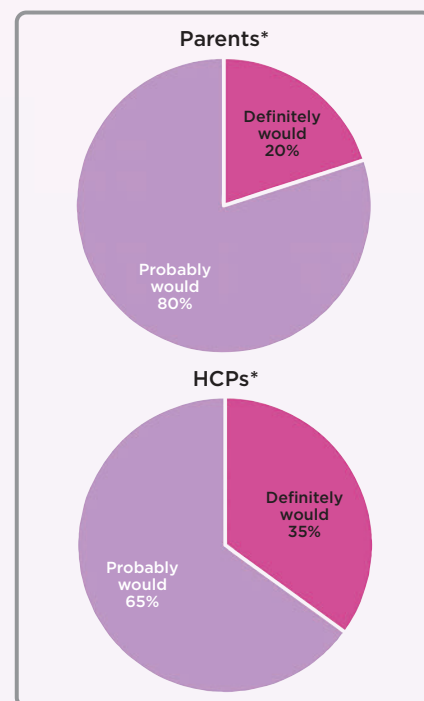
The AAF-Syn was well accepted by infants, with parents reporting no difficulties in ensuring that their child consumed the full amount of AAF-Syn prescribed (80% found it easy and 20% neither easy nor difficult). For parents of infants who had been switched from another HAF, 100% reported to prefer the AAF-Syn. All parents were satisfied with AAF-Syn and would recommend it to other parents (Figure 2).

'Easy to make up. Child appears to like the taste.' (parent of child prescribed AAF-Syn)

Summary

The results of this survey with HCPs and parents of infants with CMPA are in line with the findings of previous clinical trials in which reductions in infections and medication use have been found to be additional benefits of using an AAF-Syn over a standard AAF in the management of CMPA.^{12,13,15,16} Furthermore, these findings suggest that the use of an AAF-Syn can improve the quality of life of infants with CMPA, and their families. These results demonstrate that the benefits observed in clinical trials are also evident in real world clinical practice. The reported range of benefits is likely contributing to the important finding that AAF-Syn makes the management of CMPA easier for dietitians and GPs. Overall, the data suggests that AAF-Syn is a valuable choice to improve the management of CMPA.

Figure 2: Proportion of parents and HCPs who would recommend AAF-Syn to other parents or HCPs



*No parents or HCPs selected the 'Definitely would not' or 'Probably would not' response options

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IMPORTANT NOTICE: Breastfeeding is best. Neocate Syneo is a food for special medical purposes for the dietary management of Cow's Milk Allergy, Multiple Food Protein Allergies and other conditions where an amino acid-based formula is recommended. It should only be used under medical supervision, after full consideration of the feeding options available including breastfeeding. Suitable for use as the sole source of nutrition for infants under one year of age. Refer to label for details.