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AN AUSTRALIAN CONSENSUS ON INFANT FEEDING GUIDELINES TO PREVENT FOOD ALLERGY: OUTCOMES FROM THE AUSTRALIAN INFANT FEEDING SUMMIT

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Abstract

Background: Infant feeding in the first postnatal year of life has an important role in an infant's risk of developing food allergy. Consumer infant feeding advice is diverse and lacks consistency.

Aim: The Australian Infant Feeding Summit was held with the aim of achieving national consensus on the wording guidelines for infant feeding and allergy prevention.

Methods: Two meetings were hosted by the Centre for Food and Allergy Research, the Australasian Society of Clinical Immunology and Allergy and the Australian National Allergy Strategy. The first meeting of 30 allergy researchers, clinicians and consumers assessed the evidence. The second consensus meeting involved 46 expert stakeholders including State and Federal health care agencies, consumers and experts in allergy, infant feeding, and population health.

Results: Partner stake holders agreed on consensus wording for infant feeding advice:

1. When your infant is ready, at around 6 months, but not before 4 months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.

2. All infants should be given allergenic solid foods including peanut butter, cooked egg, dairy and wheat products in the first year of life. This includes infants at high risk of allergy.

3. Hydrolysed (partially or extensively) infant formula are not recommended for the prevention of allergic disease.

Conclusion. Consensus was achieved in a context where there is a high prevalence of food allergy. Guidelines for other countries are being updated. Provision of consistent wording related to infant feeding to reduce food allergy risk will ensure clear consumer advice.

Key Words

Infant feeding, clinical guidelines, paediatric food allergy, evidence-based research, knowledge translation, health education

Abbreviations used

RCTs: Randomised controlled trials

NHMRC: National Health and Medical Research Council

ASCIA: Australasian Society of Clinical Immunology and Allergy

CFAR: Centre for Food and Allergy Research

A&AA: Allergy & Anaphylaxis Australia

WHO: World Health Organisation

Highlights

1. What is already known about this topic?
    - Infant feeding in the first postnatal year of life plays an important role in the risk of developing food allergy.
    - Infant feeding guidelines now actively promote inclusion of common allergens in the early life diet.
2. What does this article add to our knowledge?
    - We carefully evaluated the synthesized evidence as part of the process of developing consensus Australian infant feeding guidelines to prevent food allergy.
    - Involving a range of key stakeholders will ensure infant feeding advice reaches a wide consumer audience.
3. How does this study impact on current management guidelines?
    - Consumers access a range of infant feeding advice that may be contradictory.
    - Use of consensus wording related to infant feeding to reduce food allergy risk will ensure clear and consistent consumer advice which may improve uptake.

Introduction

Internationally there has been a rise in the prevalence of atopic disease, particularly food allergy. The increase has occurred within one generation - too rapidly to be solely due to genetic factors alone. Environmental influences, including the timing and nature of dietary exposures to specific nutrients and allergens in food, are considered to play a role in the development of the immune system and the early onset of allergic disease – particularly food allergy. In response to high level evidence supporting early introduction of allergens, particularly peanut into the diet to reduce the risk of childhood food allergy, the US has recently released interim infant feeding guidelines [1], and updated guidelines are soon to be released. It is important that evidence underpins all infant feeding recommendations for food allergy prevention, however, infant feeding guidelines will need to be individualised to fit each country's context, as each country has differing allergy prevalence rates and different health care systems.

There is increasing evidence that the way infants are fed in the first postnatal year of life has an important role to play in their risk of developing food allergy and this evidence base has changed significantly in the past 10 years [2, 3]. Avoidance of allergenic solids such as peanut, egg and cow's milk for at least the first 12 months of life was recommended from the 1990s (in a bid to curb the new and rising rates of food allergy) and featured in most clinical allergy society recommendations around the world [4-6]. From 2005 onwards, recommendations began to change, based firstly on observational cohort studies which suggested that delayed introduction of allergenic foods was not associated with reduced food allergy[7-9]. Over the last two years these data are now supported by a series of well conducted randomised controlled trials (RCTs). Most notably, the LEAP study reported that delaying the introduction of peanut (5 years vs 4-11 months) significantly increased peanut allergy risk in infants with early onset eczema and/or egg allergy [10]. Thus, delaying the introduction of peanut past 11 months in infants at high risk of food allergy (with eczema and egg allergy) is now considered to be associated with increased risk of peanut allergy [1, 10]. Since the rise in allergic disease has occurred across the population and not just in high-risk individuals there has now been a call by experts to implement changes to infant feeding guidelines for all infants immediately based on this study [1].

Australia has one of the highest incidences of atopic disease, including food allergy in the world [11]. However currently in Australia, there is diverse and sometimes conflicting infant feeding advice relating to the timing of solids and the types of foods to introduce. The reasons for this are multifactorial. In Australia the National Health and Medical Research Council (NHMRC) is responsible for development and publication of evidence-based infant feeding guidelines for the whole population. The NHMRC Infant Feeding Guidelines were updated in 2012, with some minor revisions in 2015 [12]. Specific infant feeding advice focussed on the prevention of food allergies was first published by the Australasian Society of Clinical Immunology and Allergy (ASCIA) in 2008, and was updated in 2010 and then May 2016 [13]. Confusion has arisen because infant feeding guidelines are utilised and interpreted in varying ways by state health authorities and consumer organisations responsible for writing health educational materials, and this has not always been co-ordinated. As a result, the recommendations included in consumer education material vary widely in their wording about the timing of introduction to solid foods and when allergenic foods should be introduced into the diet. In addition, there are recognised knowledge gaps in some key elements of infant feeding practices directed at primary prevention of food allergy, which lead to differences in interpretation of existing evidence.

Methods:

Lead up to the 2016 Australian Infant Feeding Consensus Guidelines Summit

The Centre for Food and Allergy Research (CFAR) is a NHMRC funded Centre for Research Excellence. CFAR's goals include the synthesis and dissemination of evidence-based research for the development of clinical guidelines and improved public health policy for the prevention of food allergy. The infant feeding consensus guidelines were developed in two phases; an initial infant feeding roundtable co-convened with ASCIA in August 2015; and the May 2016 infant feeding summit specifically designed to engage a wider of stakeholder group.

Phase 1: 2015 Infant Feeding Round Table.

Aim: The Infant Feeding Round Table aimed to summarise the research on infant feeding and risk of developing early onset allergic disease (including eczema and food allergy) to determine the current level of evidence to recommend changes to the ASCIA and NHMRC infant feeding guidelines.

Participants and structure of the 2015 Infant Feeding Round Table: Over 30 researchers and clinicians who were members of CFAR and ASCIA, along with representatives from the national consumer group Allergy & Anaphylaxis Australia (A&AA) attended the Round Table. Attendees were provided with background readings, including systematic reviews to prepare for a series of presentations reviewing the evidence related to early feeding and allergy development pertaining to breastfeeding, use of partially hydrolysed formula, introduction of solid foods, allergy screening in high-risk infants and use of perinatal supplements for the infant. After each presentation there were targeted discussions related to the evidence presented.

Outcome: Based on the 2015 Round Table, and further deliberations, ASCIA guidelines for infant feeding and allergy prevention were revised and released in May 2016. The research evidence summaries developed for the 2015 Round Table were further synthesised to prepare the background paper for participants at the 2016 Infant Feeding Summit.

Phase 2: 2016 Infant Feeding Summit

Aim: The Australian Infant Feeding Summit was convened by CFAR with the express aim of achieving Australian consensus on the wording of infant feeding guidelines across all State and Federal jurisdiction and across the full spectrum of health care information provision.

Participants: In partnership with ASCIA and the National Allergy Strategy, a broad set of stakeholders with an interest, expertise and experience in infant feeding was identified and invited to attend the Summit. Representation was sought from State and Federal Health care agencies including the NHMRC, expert specialist bodies (including Royal Australian College of Physicians, Royal Australian College of General Practitioners, the Dietitians Association of Australia and Lactation Consultants Australia and New Zealand), consumer groups (Australian Breastfeeding Association), patient advocacy and support groups (A&AA) and experts in the field of infant feeding and food allergy.

Structure of the 2016 Infant Feeding Summit: The Summit was hosted in May 2016 at the Royal Children's Hospital campus, Melbourne. The background document based on the outcomes of the 2015 CFAR/ASCIA Round Table was circulated for pre-comment prior to the Summit and these comments (tabulated prior to the meeting) informed the basis of much of the Summit's discussions. An independent expert facilitator led discussions to ensure fair representation of the views of all participating groups. Presentations were delivered by both ASCIA and NHMRC about their guideline development process. An audit of infant feeding advice written for Australian consumers was also presented (by CFAR) to illustrate how the guidelines are translated into a range of health education materials. Three main issues relevant to development of food allergies were discussed: 1) breastfeeding, 2) use of breastmilk substitutes, and 3) timing and types of solid foods. The Summit's first open discussion offered the opportunity for stakeholders to discuss CFAR's consensus recommendations on these key issues and consider divergent opinions. The second open discussion focused on how to manage change and respond to new research evidence that is continually evolving. The third Summit discussion addressed knowledge translation and the need for consumer-friendly information, effective dissemination using existing channels and the harmonisation of messages to providers and consumers.

The workshop concluded with development of consensus statement on infant feeding. The discussions and consensus on each of the three main issues are outlined below.

Results: A Review of the Past, New Evidence, and Consensus

1. Timing of Introduction to Solid Foods and Optimal Exposure to Allergens

Complementary feeding (or 'introduction to solid foods') refers to the addition of foods other than breastmilk or infant formula into an infant's diet. The issues specific to prevention of food allergy relate to timing of starting solid foods and exposure to common allergens [2, 3, 14, 15]. World Health Organisation (WHO), NHRMC and ASCIA recommendations at the time of the summit are summarised in Table 1.

Timing of introduction to solid foods: At around 6 months of age, stores of iron and other nutrients laid down during pregnancy begin to reduce and infants show developmental signs that they are ready to consume more than breastmilk alone. There are differences in the wording of recommended timing to introduce solid foods: The WHO[17] recommend introduction to solid foods *from* 6 months, whereas the NHMRC[12] recommends solid foods *at around* 6 months of age. The March 2016 revision of the ASCIA[13] guidelines recommended introduction to solid foods *from 4 to 6 months of age, when the infant is developmentally ready to start solid foods.* Despite recommendations to introduce solid foods at around 6 months, the 2010 Australian National Infant Feeding Survey reported 35.3% of infants had started solids at 4-5 months and 70.2% by 5-6 months of age [16].

Type of foods, including exposure to foods that are common allergens: The WHO encourages introduction of nutritionally adequate and safe foods offered in ways consistent with a child's signals of appetite, satiety, and developmental needs [17]. The NHMRC 2012 infant feeding guidelines recommend that iron rich foods (e.g. iron fortified cereals and pureed meat, poultry or fish) are included amongst the first foods, and advise that no foods or food allergens should be avoided during infancy to prevent allergy development [12]. Since these NHMRC 2012 infant feeding guidelines, the results of two significant RCTs have been published. Whilst the results of these trials provide more information and useful details about infant feeding and allergy risk, they do not require any changes to be made to the NHMRC guidelines. The LEAP study compared early (4 to 11 months) with delayed (5 years)

207 introduction to peanut in children at high risk of peanut allergy due to pre-existing eczema and/or egg
208 allergy. In 2015, the study reported an 11 to 25% absolute reduction in the risk of peanut allergy in
209 high-risk infants (and a relative risk reduction of up to 80%) if peanut was introduced between 4 and 11
210 months of age [10]. The EAT study [18] was the first RCT testing the effect on subsequent development of
211 allergy of early introduction to solid foods (from 3 months) compared with the UK guidelines of
212 exclusive breastfeeding until introduction to solid foods at around 6 months. In 2016, the study
213 reported no significant difference in food allergy rates in the primary analysis (intention to treat
214 analysis) between the early and standard introduction groups. Additionally, there was no difference in
215 breastfeeding rates at 12 months for individuals in the early introduction group compared with the
216 exclusive breastfeeding group, showing that earlier introduction of allergenic foods did not have an
217 impact on breastfeeding [19].

218 In 2015, ten international allergy and immunology bodies released a joint consensus communication to
219 highlight the new evidence from the LEAP study regarding potential benefits of early, rather than
220 delayed, peanut introduction during the period of complementary food introduction to prevent peanut
221 allergy in high risk infants [1]. ASCIA updated their infant feeding advice in March 2016 to incorporate
222 the findings of the LEAP study [13, 20]. The ASCIA guidelines actively promote the introduction of
223 common allergens into the infant's diet (from 4 to 6 months of age) as opposed to delayed
224 introduction. The 2015 revision of the 2012 NHMRC infant feeding guidelines align with this, stating
225 that delaying introduction of solid foods, including allergenic foods after the age of 6 months may
226 increase the risk of allergy[12]. In May 2016 ASCIA infant feeding advice and ASCIA guidelines for
227 allergy prevention were merged and condensed into new ASCIA guidelines for infant feeding and
228 allergy prevention, which include the consensus statements from the Australian Infant Feeding Summit.

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Timing of Introduction to Solids: Summit discussion points to ensure reflection of the evidence base:

The differing wording of the NHMRC guidelines and ASCIA advice was leading to varied advice for the recommended timing to start solid foods when translated into consumer material. There was consensus that the intent of the 'from 4 to 6 month' wording of the March 2016 ASCIA advice was to encourage parents to start solid foods when their infant is developmentally ready. The term 'at around 6 months is also used'.

Participants agreed that a statement advising against introduction of solid foods before 4 months of age should be included in the consensus wording. In addition to increased risk of allergy [8, 21], complementary feeding prior to 4 months of age is associated with increased risk of obesity [22] and gastrointestinal disorders [8].

Reiteration of previous consensus:

Indicators of developmental readiness for solid foods should be clearly communicated in statements related to commencing solid foods. Infants should be exposed to a variety of solid foods, for nutrient diversity, development of taste preferences, and education regarding different textures of foods [23]. Iron rich foods should be amongst the first foods offered, as iron deficiency disorders are a major health issue [12]. Breastfeeding is encouraged during the complementary feeding period because of its nutrient profile, beneficial effect on the gut microbiome, protection from infection, and longer-term benefits to maternal health [24].

Optimal exposure to allergens: Summit discussion points to ensure reflection of the evidence base:

The cornerstone of the change in approach is high level, RCT based evidence that inclusion of allergens (peanuts) in the diet during the first year of life reduces the risk of food allergy. Summit participants agreed that common allergens (such as peanut, egg, wheat, and cow's milk) should be regularly included in an infant's diet during the first year of life. This is consistent with the NHMRC 2012 infant feeding guidelines [12], and consistent with WHO recommendations [25] encouraging food diversity in the weaning

diet. It was agreed that practical guidelines on appropriate textures of infant foods are required (specifically use of nut meal or paste rather than whole nuts in the early diet to reduce the risk of choking). Issues related to up-skilling of the workforce responsible for providing information to consumers related to infant feeding were discussed.

Practical and economic issues were noted if allergy screening was to be recommended for infants at higher risk of food allergies (including infants with severe eczema and / or diagnosed egg allergy) was to be recommended.

The HealthNuts study identified that families at high risk of developing food allergy are less likely to introduce egg and peanut into their infant's diets compared with low risk families [26]. Potential means of targeting families that are more likely to benefit from early introduction of allergens were discussed, including education at diagnosis.

Agreed Knowledge gaps:

- There is little evidence related to timing of exposure to allergens for infants with food allergies other than egg and peanut. However, egg and peanut comprise the most common allergies at 12 months of age.
- We do not know if there is any additional benefit from early (between 4-6 months), compared with later (from 6 months, before 12 months) introduction of allergenic solid foods. It is also unknown if introduction of allergens whilst breastfeeding is beneficial.
- There is insufficient evidence to know if the current recommendations apply differently to preterm infants.
- It was acknowledged that it is unlikely that RCTs on all allergenic foods, on infant populations at both high and low risk of allergic disease will be conducted due to financial and logistical reasons.

2. Breastfeeding

The health benefits of breastfeeding are reviewed in the 2016 Lancet breastfeeding series [24], and by the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) Committee

on Nutrition [27]. Breastfeeding is the first and most important feeding exposure, and facilitates the establishment of the infant gut microbiome by providing breastmilk microbiota, immunomodulatory factors, and oligosaccharides [28]. While there is insufficient evidence to state that breastfeeding prevents allergies [29], it is universally promoted in both developing and developed countries as it conveys other important benefits to both the mother and the child [12, 24, 30]. Recommendations related to length of exclusive breastfeeding are closely linked to recommendations regarding timing of complementary foods (Table 1). Breastfeeding should be continued in addition to complementary feeding to 12 months and beyond, for as long as the mother and child desire [12, 24, 30]. Statements from WHO, NHRMC and ASCIA related to breastfeeding are summarised in Table 2.

Breastfeeding: Summit discussion points to ensure reflection of the evidence base:

There was overwhelming agreement amongst stakeholders that breastfeeding is important for babies and mothers. Guidelines should aim to minimise food allergies, whilst ensuring that the mother and child do not miss the other health benefits of breastfeeding. Whilst it may not reduce allergy risk, ongoing breastfeeding while solid foods are introduced should be encouraged. It was acknowledged that infants who have been exclusively breast-feed for 6 months may still develop food allergies.

Knowledge gaps:

The true prevalence of exclusive breastfeeding in Australia is not known, due to recall bias and lack of systematic documentation of supplementing breast feeds with infant formula in the early neonatal period. In the Australasian context it is unclear whether there is any health benefit obtained from exclusive breastfeeding for 6 months as compared to continuing breastfeeding with introduction of foods from 4-6 months of age.

3. Use of Breastmilk Substitutes for Allergy Prevention

Breastmilk substitutes are used on cessation of established breastfeeding, earlier if mothers do not breast feed, or as mixed feeding where the infant receives both breastmilk and infant formula feeds.

Statements from WHO, NHRMC and ASCIA related to use of breastmilk substitutes are summarised in Table 3.

The quality of breastmilk substitutes and their ability to play a role in optimal health and disease prevention is of intense commercial and public health interest. Breastmilk substitutes cannot replicate the complex and adaptive constituents of breastmilk and the benefits of breastfeeding for mothers or infants [12, 24]. For prevention of allergy, there is insufficient evidence to recommend use of soy-based formulas, formulas containing long chain polyunsaturated fatty acids, or formulas that contain prebiotics or probiotics compared to standard cow's milk based infant formula. Until recently, infant feeding guidelines in Europe, America, and Australasia [31-33] supported the use of hydrolysed "HA" formulas for non-breastfed infants in place of standard cows' milk formula if the infant has a family history of allergy. A recent systematic review by Boyle et al [34] investigated whether hydrolysed cows' milk formulas can prevent allergic or autoimmune disease. This review found "no consistent evidence that partially or extensively hydrolysed formulas reduce risk of allergic or autoimmune outcomes" and this is now reflected in the most recent ASCIA recent guidelines.

Breastmilk Substitutes to Reduce Allergy Risk: Summit discussion points to ensure reflection of the evidence base:

Stakeholders agreed with the May 2016 ASCIA statement regarding the use of partially hydrolysed 'HA' formulas for the prevention of food allergy. Differences in methodology between the Boyle meta-analysis [34] and the protocols for Cochrane systematic review were discussed, as was the need for corrections for bias, due to industry sponsorship of research into hydrolysed infant formula.

Knowledge gaps: none identified during the summit.

Discussion:

Summary of the 2016 Australian Infant Feeding Summit Consensus Agreement

The Summit resulted in the following consensus agreement on infant feeding advice across all partner participants:

1. When your infant is ready, at around 6 months, but not before 4 months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.

2. All infants should be given allergenic solid foods including peanut butter, cooked egg, dairy and wheat products in the first year of life. This includes infants at high risk of allergy.

3. Hydrolysed (partially or extensively) infant formula is not recommended for prevention of allergic disease.

This advice is consistent with the NHMRC Infant Feeding Guidelines, which aim to provide advice on infant feeding for the whole population to achieve a variety of health outcomes (not just allergy prevention). The essential changes of expanding the timing of introduction of solid foods to 'around 6 months and not before 4 months' ensures alignment with current NHMRC guidelines, and ongoing consistency with the WHO feeding guidelines. Allergenic solids were recommended to be included in the first year as we are awaiting further RCT based evidence about the exact window of opportunity for introduction to allergenic solids other than peanuts. However, observational data supports the risk of delaying exposure to common allergens beyond 12 months for other foods such as egg, wheat, and cow's milk. Furthermore, the LEAP trial assessed introduction of peanuts between 4 to 11 months and a narrower window has not been defined. After the Summit, other RCTs examining the timing of introduction of allergenic foods have been published, including studies examining egg [36-38]. The reversal of recommendations regarding the use of hydrolysed formula for allergy prevention was largely based on a recent systematic review and meta-analysis [34] which demonstrated no role for partially or extensively hydrolyzed formula related to the prevention of food allergy or early onset allergic disease.

Translation of The Summit Outcomes

It is important to provide consistent wording in consumer material and policy documents across both national and state health bodies to ensure guidelines are clear and easy for all health professionals,

parents and caregivers to follow. It is essential that messages are targeted correctly to address potential barriers. Barriers to dissemination and uptake will need to be identified to ensure that parents of high-risk infants are aware of and receive the necessary support to be able to follow this advice.

Short-term knowledge translation activities from the Summit include the dissemination of the consensus wording to stakeholder organisations to facilitate updating of existing educational material. Standardised Power Point presentation packages for health education staff have been developed, and an 'infographic' with the main messages for consumers has been developed for newsletters and on social media platforms. The ASCIA infant feeding advice has been updated to be consistent with the consensus wording [20], and a practical guide to introducing solid foods for infants at risk of allergy has been developed [39].

Concluding Statement:

The 2016 Australian Infant Feeding Summit produced consistent, agreed recommendations representing the shared current evidenced-based views of consumers, federal and state government agencies, health care professionals, industry, and researchers.

Australian infant feeding guidelines continue to consistently recommend breastfeeding for its benefits for both the mother and child. There have been recent changes to remove previous advice regarding the potential benefit of partially hydrolysed formula for allergy prevention.

Regarding timing and type of first foods, there is much commonality in the NHMRC and ASCIA infant feeding guidelines. However, following the release of new evidence in 2015, it is recommended that common allergens (specifically peanut) should be incorporated into an infant's diet within the first year to reduce the risk of food allergy. It will be important to ensure that those involved in providing infant feeding advice to parents are aware of these changes and the reasons for the changes. They should be provided with clear and concise advice to share with parents and caregivers.

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AN AUSTRALIAN CONSENSUS ON INFANT FEEDING GUIDELINES TO PREVENT FOOD ALLERGY: OUTCOMES FROM THE AUSTRALIAN INFANT FEEDING SUMMIT

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Abstract

Background: Infant feeding in the first postnatal year of life has an important role in an infant's risk of developing food allergy. Consumer infant feeding advice is diverse and lacks consistency.

Aim: The Australian Infant Feeding Summit was held with the aim of achieving national consensus on the wording guidelines for infant feeding and allergy prevention.

Methods: Two meetings were hosted by the Centre for Food and Allergy Research, the Australasian Society of Clinical Immunology and Allergy and the Australian National Allergy Strategy. The first meeting of 30 allergy researchers, clinicians and consumers assessed the evidence. The second consensus meeting involved 46 expert stakeholders including State and Federal health care agencies, consumers and experts in allergy, infant feeding, and population health.

Results: Partner stake holders agreed on consensus wording for infant feeding advice:

1. When your infant is ready, at around 6 months, but not before 4 months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.

2. All infants should be given allergenic solid foods including peanut butter, cooked egg, dairy and wheat products in the first year of life. This includes infants at high risk of allergy.

3. Hydrolysed (partially or extensively) infant formula are not recommended for the prevention of allergic disease.

Conclusion. Consensus was achieved in a context where there is a high prevalence of food allergy. Guidelines for other countries are being updated. Provision of consistent wording related to infant feeding to reduce food allergy risk will ensure clear consumer advice.

Key Words

Infant feeding, clinical guidelines, paediatric food allergy, evidence-based research, knowledge translation, health education

Abbreviations used

RCTs: Randomised controlled trials

NHMRC: National Health and Medical Research Council

ASCIA: Australasian Society of Clinical Immunology and Allergy

CFAR: Centre for Food and Allergy Research

A&AA: Allergy & Anaphylaxis Australia

WHO: World Health Organisation

Highlights

1. What is already known about this topic?
    - Infant feeding in the first postnatal year of life plays an important role in the risk of developing food allergy.
    - Infant feeding guidelines now actively promote inclusion of common allergens in the early life diet.
2. What does this article add to our knowledge?
    - We carefully evaluated the synthesized evidence as part of the process of developing consensus Australian infant feeding guidelines to prevent food allergy.
    - Involving a range of key stakeholders will ensure infant feeding advice reaches a wide consumer audience.
3. How does this study impact on current management guidelines?
    - Consumers access a range of infant feeding advice that may be contradictory.
    - Use of consensus wording related to infant feeding to reduce food allergy risk will ensure clear and consistent consumer advice which may improve uptake.

Introduction

Internationally there has been a rise in the prevalence of atopic disease, particularly food allergy. The increase has occurred within one generation - too rapidly to be solely due to genetic factors alone. Environmental influences, including the timing and nature of dietary exposures to specific nutrients and allergens in food, are considered to play a role in the development of the immune system and the early onset of allergic disease – particularly food allergy. In response to high level evidence supporting early introduction of allergens, particularly peanut into the diet to reduce the risk of childhood food allergy, the US has recently released interim infant feeding guidelines [1], and updated guidelines are soon to be released. It is important that evidence underpins all infant feeding recommendations for food allergy prevention, however, infant feeding guidelines will need to be individualised to fit each country's context, as each country has differing allergy prevalence rates and different health care systems.

There is increasing evidence that the way infants are fed in the first postnatal year of life has an important role to play in their risk of developing food allergy and this evidence base has changed significantly in the past 10 years [2, 3]. Avoidance of allergenic solids such as peanut, egg and cow's milk for at least the first 12 months of life was recommended from the 1990s (in a bid to curb the new and rising rates of food allergy) and featured in most clinical allergy society recommendations around the world [4-6]. From 2005 onwards, recommendations began to change, based firstly on observational cohort studies which suggested that delayed introduction of allergenic foods was not associated with reduced food allergy[7-9]. Over the last two years these data are now supported by a series of well conducted randomised controlled trials (RCTs). Most notably, the LEAP study reported that delaying the introduction of peanut (5 years vs 4-11 months) significantly increased peanut allergy risk in infants with early onset eczema and/or egg allergy [10]. Thus, delaying the introduction of peanut past 11 months in infants at high risk of food allergy (with eczema and egg allergy) is now considered to be associated with increased risk of peanut allergy [1, 10]. Since the rise in allergic disease has occurred across the population and not just in high-risk individuals there has now been a call by experts to implement changes to infant feeding guidelines for all infants immediately based on this study [1].

Australia has one of the highest incidences of atopic disease, including food allergy in the world [11]. However currently in Australia, there is diverse and sometimes conflicting infant feeding advice relating to the timing of solids and the types of foods to introduce. The reasons for this are multifactorial. In Australia the National Health and Medical Research Council (NHMRC) is responsible for development and publication of evidence-based infant feeding guidelines for the whole population. The NHMRC Infant Feeding Guidelines were updated in 2012, with some minor revisions in 2015 [12]. Specific infant feeding advice focussed on the prevention of food allergies was first published by the Australasian Society of Clinical Immunology and Allergy (ASCIA) in 2008, and was updated in 2010 and then May 2016 [13]. Confusion has arisen because infant feeding guidelines are utilised and interpreted in varying ways by state health authorities and consumer organisations responsible for writing health educational materials, and this has not always been co-ordinated. As a result, the recommendations included in consumer education material vary widely in their wording about the timing of introduction to solid foods and when allergenic foods should be introduced into the diet. In addition, there are recognised knowledge gaps in some key elements of infant feeding practices directed at primary prevention of food allergy, which lead to differences in interpretation of existing evidence.

Methods:

Lead up to the 2016 Australian Infant Feeding Consensus Guidelines Summit

The Centre for Food and Allergy Research (CFAR) is a NHMRC funded Centre for Research Excellence. CFAR's goals include the synthesis and dissemination of evidence-based research for the development of clinical guidelines and improved public health policy for the prevention of food allergy. The infant feeding consensus guidelines were developed in two phases; an initial infant feeding roundtable co-convened with ASCIA in August 2015; and the May 2016 infant feeding summit specifically designed to engage a wider of stakeholder group.

Phase 1: 2015 Infant Feeding Round Table.

Aim: The Infant Feeding Round Table aimed to summarise the research on infant feeding and risk of developing early onset allergic disease (including eczema and food allergy) to determine the current level of evidence to recommend changes to the ASCIA and NHMRC infant feeding guidelines.

Participants and structure of the 2015 Infant Feeding Round Table: Over 30 researchers and clinicians who were members of CFAR and ASCIA, along with representatives from the national consumer group Allergy & Anaphylaxis Australia (A&AA) attended the Round Table. Attendees were provided with background readings, including systematic reviews to prepare for a series of presentations reviewing the evidence related to early feeding and allergy development pertaining to breastfeeding, use of partially hydrolysed formula, introduction of solid foods, allergy screening in high-risk infants and use of perinatal supplements for the infant. After each presentation there were targeted discussions related to the evidence presented.

Outcome: Based on the 2015 Round Table, and further deliberations, ASCIA guidelines for infant feeding and allergy prevention were revised and released in May 2016. The research evidence summaries developed for the 2015 Round Table were further synthesised to prepare the background paper for participants at the 2016 Infant Feeding Summit.

Phase 2: 2016 Infant Feeding Summit

Aim: The Australian Infant Feeding Summit was convened by CFAR with the express aim of achieving Australian consensus on the wording of infant feeding guidelines across all State and Federal jurisdiction and across the full spectrum of health care information provision.

Participants: In partnership with ASCIA and the National Allergy Strategy, a broad set of stakeholders with an interest, expertise and experience in infant feeding was identified and invited to attend the Summit. Representation was sought from State and Federal Health care agencies including the NHMRC, expert specialist bodies (including Royal Australian College of Physicians, Royal Australian College of General Practitioners, the Dietitians Association of Australia and Lactation Consultants Australia and New Zealand), consumer groups (Australian Breastfeeding Association), patient advocacy and support groups (A&AA) and experts in the field of infant feeding and food allergy.

Structure of the 2016 Infant Feeding Summit: The Summit was hosted in May 2016 at the Royal Children's Hospital campus, Melbourne. The background document based on the outcomes of the 2015 CFAR/ASCIA Round Table was circulated for pre-comment prior to the Summit and these comments (tabulated prior to the meeting) informed the basis of much of the Summit's discussions. An independent expert facilitator led discussions to ensure fair representation of the views of all participating groups. Presentations were delivered by both ASCIA and NHMRC about their guideline development process. An audit of infant feeding advice written for Australian consumers was also presented (by CFAR) to illustrate how the guidelines are translated into a range of health education materials. Three main issues relevant to development of food allergies were discussed: 1) breastfeeding, 2) use of breastmilk substitutes, and 3) timing and types of solid foods. The Summit's first open discussion offered the opportunity for stakeholders to discuss CFAR's consensus recommendations on these key issues and consider divergent opinions. The second open discussion focused on how to manage change and respond to new research evidence that is continually evolving. The third Summit discussion addressed knowledge translation and the need for consumer-friendly information, effective dissemination using existing channels and the harmonisation of messages to providers and consumers.

The workshop concluded with development of consensus statement on infant feeding. The discussions and consensus on each of the three main issues are outlined below.

Results: A Review of the Past, New Evidence, and Consensus

1. Timing of Introduction to Solid Foods and Optimal Exposure to Allergens

Complementary feeding (or 'introduction to solid foods') refers to the addition of foods other than breastmilk or infant formula into an infant's diet. The issues specific to prevention of food allergy relate to timing of starting solid foods and exposure to common allergens [2, 3, 14, 15]. World Health Organisation (WHO), NHRMC and ASCIA recommendations at the time of the summit are summarised in Table 1.

Timing of introduction to solid foods: At around 6 months of age, stores of iron and other nutrients laid down during pregnancy begin to reduce and infants show developmental signs that they are ready to consume more than breastmilk alone. There are differences in the wording of recommended timing to introduce solid foods: The WHO[17] recommend introduction to solid foods *from* 6 months, whereas the NHMRC[12] recommends solid foods *at around* 6 months of age. The March 2016 revision of the ASCIA[13] guidelines recommended introduction to solid foods *from 4 to 6 months of age, when the infant is developmentally ready to start solid foods*. Despite recommendations to introduce solid foods at around 6 months, the 2010 Australian National Infant Feeding Survey reported 35.3% of infants had started solids at 4-5 months and 70.2% by 5-6 months of age [16].

Type of foods, including exposure to foods that are common allergens: The WHO encourages introduction of nutritionally adequate and safe foods offered in ways consistent with a child's signals of appetite, satiety, and developmental needs [17]. The NHMRC 2012 infant feeding guidelines recommend that iron rich foods (e.g. iron fortified cereals and pureed meat, poultry or fish) are included amongst the first foods, and advise that no foods or food allergens should be avoided during infancy to prevent allergy development [12]. Since these NHMRC 2012 infant feeding guidelines, the results of two significant RCTs have been published. Whilst the results of these trials provide more information and useful details about infant feeding and allergy risk, they do not require any changes to be made to the NHMRC guidelines. The LEAP study compared early (4 to 11 months) with delayed (5 years)

207 introduction to peanut in children at high risk of peanut allergy due to pre-existing eczema and/or egg
208 allergy. In 2015, the study reported an 11 to 25% absolute reduction in the risk of peanut allergy in
209 high-risk infants (and a relative risk reduction of up to 80%) if peanut was introduced between 4 and 11
210 months of age [10]. The EAT study [18] was the first RCT testing the effect on subsequent development of
211 allergy of early introduction to solid foods (from 3 months) compared with the UK guidelines of
212 exclusive breastfeeding until introduction to solid foods at around 6 months. In 2016, the study
213 reported no significant difference in food allergy rates in the primary analysis (intention to treat
214 analysis) between the early and standard introduction groups. Additionally, there was no difference in
215 breastfeeding rates at 12 months for individuals in the early introduction group compared with the
216 exclusive breastfeeding group, showing that earlier introduction of allergenic foods did not have an
217 impact on breastfeeding [19].

218 In 2015, ten international allergy and immunology bodies released a joint consensus communication to
219 highlight the new evidence from the LEAP study regarding potential benefits of early, rather than
220 delayed, peanut introduction during the period of complementary food introduction to prevent peanut
221 allergy in high risk infants [1]. ASCIA updated their infant feeding advice in March 2016 to incorporate
222 the findings of the LEAP study [13, 20]. The ASCIA guidelines actively promote the introduction of
223 common allergens into the infant's diet (from 4 to 6 months of age) as opposed to delayed
224 introduction. The 2015 revision of the 2012 NHMRC infant feeding guidelines align with this, stating
225 that delaying introduction of solid foods, including allergenic foods after the age of 6 months may
226 increase the risk of allergy[12]. In May 2016 ASCIA infant feeding advice and ASCIA guidelines for
227 allergy prevention were merged and condensed into new ASCIA guidelines for infant feeding and
228 allergy prevention, which include the consensus statements from the Australian Infant Feeding Summit.

229

Timing of Introduction to Solids: Summit discussion points to ensure reflection of the evidence base:

The differing wording of the NHMRC guidelines and ASCIA advice was leading to varied advice for the recommended timing to start solid foods when translated into consumer material. There was consensus that the intent of the 'from 4 to 6 month' wording of the March 2016 ASCIA advice was to encourage parents to start solid foods when their infant is developmentally ready. The term 'at around 6 months is also used'.

Participants agreed that a statement advising against introduction of solid foods before 4 months of age should be included in the consensus wording. In addition to increased risk of allergy [8, 21], complementary feeding prior to 4 months of age is associated with increased risk of obesity [22] and gastrointestinal disorders [8].

Reiteration of previous consensus:

Indicators of developmental readiness for solid foods should be clearly communicated in statements related to commencing solid foods. Infants should be exposed to a variety of solid foods, for nutrient diversity, development of taste preferences, and education regarding different textures of foods [23]. Iron rich foods should be amongst the first foods offered, as iron deficiency disorders are a major health issue [12]. Breastfeeding is encouraged during the complementary feeding period because of its nutrient profile, beneficial effect on the gut microbiome, protection from infection, and longer-term benefits to maternal health [24].

Optimal exposure to allergens: Summit discussion points to ensure reflection of the evidence base:

The cornerstone of the change in approach is high level, RCT based evidence that inclusion of allergens (peanuts) in the diet during the first year of life reduces the risk of food allergy. Summit participants agreed that common allergens (such as peanut, egg, wheat, and cow's milk) should be regularly included in an infant's diet during the first year of life. This is consistent with the NHMRC 2012 infant feeding guidelines [12], and consistent with WHO recommendations [25] encouraging food diversity in the weaning

diet. It was agreed that practical guidelines on appropriate textures of infant foods are required (specifically use of nut meal or paste rather than whole nuts in the early diet to reduce the risk of choking). Issues related to up-skilling of the workforce responsible for providing information to consumers related to infant feeding were discussed.

Practical and economic issues were noted if allergy screening was to be recommended for infants at higher risk of food allergies (including infants with severe eczema and / or diagnosed egg allergy) was to be recommended.

The HealthNuts study identified that families at high risk of developing food allergy are less likely to introduce egg and peanut into their infant's diets compared with low risk families [26]. Potential means of targeting families that are more likely to benefit from early introduction of allergens were discussed, including education at diagnosis.

Agreed Knowledge gaps:

- There is little evidence related to timing of exposure to allergens for infants with food allergies other than egg and peanut. However, egg and peanut comprise the most common allergies at 12 months of age.
- We do not know if there is any additional benefit from early (between 4-6 months), compared with later (from 6 months, before 12 months) introduction of allergenic solid foods. It is also unknown if introduction of allergens whilst breastfeeding is beneficial.
- There is insufficient evidence to know if the current recommendations apply differently to preterm infants.
- It was acknowledged that it is unlikely that RCTs on all allergenic foods, on infant populations at both high and low risk of allergic disease will be conducted due to financial and logistical reasons.

2. Breastfeeding

The health benefits of breastfeeding are reviewed in the 2016 Lancet breastfeeding series [24], and by the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) Committee on Nutrition [27]. Breastfeeding is the first and most important feeding exposure, and facilitates the establishment of the infant gut microbiome by providing breastmilk microbiota, immunomodulatory factors, and oligosaccharides [28]. While there is insufficient evidence to state that breastfeeding prevents allergies [29], it is universally promoted in both developing and developed countries as it conveys other important benefits to both the mother and the child [12, 24, 30]. Recommendations related to length of exclusive breastfeeding are closely linked to recommendations regarding timing of complementary foods (Table 1). Breastfeeding should be continued in addition to complementary feeding to 12 months and beyond, for as long as the mother and child desire [12, 24, 30]. Statements from WHO, NHRMC and ASCIA related to breastfeeding are summarised in Table 2.

Breastfeeding: Summit discussion points to ensure reflection of the evidence base:

There was overwhelming agreement amongst stakeholders that breastfeeding is important for babies and mothers. Guidelines should aim to minimise food allergies, whilst ensuring that the mother and child do not miss the other health benefits of breastfeeding. Whilst it may not reduce allergy risk, ongoing breastfeeding while solid foods are introduced should be encouraged. It was acknowledged that infants who have been exclusively breast-feed for 6 months may still develop food allergies.

Knowledge gaps:

The true prevalence of exclusive breastfeeding in Australia is not known, due to recall bias and lack of systematic documentation of supplementing breast feeds with infant formula in the early neonatal period. In the Australasian context it is unclear whether there is any health benefit obtained from exclusive breastfeeding for 6 months as compared to continuing breastfeeding with introduction of foods from 4-6 months of age.

3. Use of Breastmilk Substitutes for Allergy Prevention

Breastmilk substitutes are used on cessation of established breastfeeding, earlier if mothers do not breast feed, or as mixed feeding where the infant receives both breastmilk and infant formula feeds. Statements from WHO, NHRMC and ASCIA related to use of breastmilk substitutes are summarised in Table 3.

The quality of breastmilk substitutes and their ability to play a role in optimal health and disease prevention is of intense commercial and public health interest. Breastmilk substitutes cannot replicate the complex and adaptive constituents of breastmilk and the benefits of breastfeeding for mothers or infants [12, 24]. For prevention of allergy, there is insufficient evidence to recommend use of soy-based formulas, formulas containing long chain polyunsaturated fatty acids, or formulas that contain prebiotics or probiotics compared to standard cow's milk based infant formula. Until recently, infant feeding guidelines in Europe, America, and Australasia [31-33] supported the use of hydrolysed "HA" formulas for non-breastfed infants in place of standard cows' milk formula if the infant has a family history of allergy. A recent systematic review by Boyle et al [34] investigated whether hydrolysed cows' milk formulas can prevent allergic or autoimmune disease. This review found "no consistent evidence that partially or extensively hydrolysed formulas reduce risk of allergic or autoimmune outcomes" and this is now reflected in the most recent ASCIA recent guidelines.

Breastmilk Substitutes to Reduce Allergy Risk: Summit discussion points to ensure reflection of the evidence base:

Stakeholders agreed with the May 2016 ASCIA statement regarding the use of partially hydrolysed 'HA' formulas for the prevention of food allergy. Differences in methodology between the Boyle meta-analysis [34] and the protocols for Cochrane systematic review were discussed, as was the need for corrections for bias, due to industry sponsorship of research into hydrolysed infant formula.

Knowledge gaps: none identified during the summit.

Discussion:

Summary of the 2016 Australian Infant Feeding Summit Consensus Agreement

The Summit resulted in the following consensus agreement on infant feeding advice across all partner participants:

1. When your infant is ready, at around 6 months, but not before 4 months, start to introduce a variety of solid foods, starting with iron rich foods, while continuing breastfeeding.

2. All infants should be given allergenic solid foods including peanut butter, cooked egg, dairy and wheat products in the first year of life. This includes infants at high risk of allergy.

3. Hydrolysed (partially or extensively) infant formula is not recommended for prevention of allergic disease.

This advice is consistent with the NHMRC Infant Feeding Guidelines, which aim to provide advice on infant feeding for the whole population to achieve a variety of health outcomes (not just allergy prevention). The essential changes of expanding the timing of introduction of solid foods to 'around 6 months and not before 4 months' ensures alignment with current NHMRC guidelines, and ongoing consistency with the WHO feeding guidelines. Allergenic solids were recommended to be included in the first year as we are awaiting further RCT based evidence about the exact window of opportunity for introduction to allergenic solids other than peanuts. However, observational data supports the risk of delaying exposure to common allergens beyond 12 months for other foods such as egg, wheat, and cow's milk. Furthermore, the LEAP trial assessed introduction of peanuts between 4 to 11 months and a narrower window has not been defined. After the Summit, other RCTs examining the timing of introduction of allergenic foods have been published, including studies examining egg [36-38]. The reversal of recommendations regarding the use of hydrolysed formula for allergy prevention was largely based on a recent systematic review and meta-analysis [34] which demonstrated no role for partially or extensively hydrolyzed formula related to the prevention of food allergy or early onset allergic disease.

Translation of The Summit Outcomes

It is important to provide consistent wording in consumer material and policy documents across both national and state health bodies to ensure guidelines are clear and easy for all health professionals, parents and caregivers to follow. It is essential that messages are targeted correctly to address potential barriers. Barriers to dissemination and uptake will need to be identified to ensure that parents of high-risk infants are aware of and receive the necessary support to be able to follow this advice.

Short-term knowledge translation activities from the Summit include the dissemination of the consensus wording to stakeholder organisations to facilitate updating of existing educational material. Standardised Power Point presentation packages for health education staff have been developed, and an 'infographic' with the main messages for consumers has been developed for newsletters and on social media platforms. The ASCIA infant feeding advice has been updated to be consistent with the consensus wording [20], and a practical guide to introducing solid foods for infants at risk of allergy has been developed [39].

Concluding Statement:

The 2016 Australian Infant Feeding Summit produced consistent, agreed recommendations representing the shared current evidenced-based views of consumers, federal and state government agencies, health care professionals, industry, and researchers.

Australian infant feeding guidelines continue to consistently recommend breastfeeding for its benefits for both the mother and child. There have been recent changes to remove previous advice regarding the potential benefit of partially hydrolysed formula for allergy prevention.

Regarding timing and type of first foods, there is much commonality in the NHMRC and ASCIA infant feeding guidelines. However, following the release of new evidence in 2015, it is recommended that common allergens (specifically peanut) should be incorporated into an infant's diet within the first year to reduce the risk of food allergy. It will be important to ensure that those involved in providing infant feeding advice to parents are aware of these changes and the reasons for the changes. They should be provided with clear and concise advice to share with parents and caregivers.

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Table 1 Comparisons of Statements Regarding Timing and Types of Solid Foods from WHO, NHMRC and ASCIA

Organisation	**Statements Regarding Timing of Introduction to Solid Foods**
WHO (2003) [17]	"… from the age of 6 months with continued breastfeeding up to 2 years of age or beyond".
NHMRC Infant Feeding Guidelines (2015 revision) [12]	'Introducing solid foods at around 6 months is necessary to meet the infant's increasing nutritional and developmental needs' (p86).
ASCIA (March 2016) [13]	"4 to 6 months when your infant is developmentally ready to start solids"
Organisation	**Statements Regarding First Foods**
WHO (2003) [17]	"Nutritionally adequate and safe complementary feeding…"
NHMRC Infant Feeding Guidelines (2015 revision) [12]	"**Key Points** (p85) • From around 6 months, infants should be offered a range of foods of an appropriate texture and consistency for their developmental stage. • First foods should be iron-rich and an increasing range and quantity of foods should be introduced so that by 12 months the infant is consuming a wide variety of family foods. • Breastmilk or infant formula should be continued while introducing solids, with other drinks, except cooled boiled tap water, avoided until the infant is 12 months old." "There is no evidence that avoiding any particular foods or food allergens during pregnancy, lactation or infancy provides any benefit in preventing allergy, and this is no longer recommended" (p82) "as long as iron-rich foods are included in first foods, foods can be introduced in any order and at a rate that suits the infant" (p87) "Delaying the introduction of solid foods, including allergenic foods, after the age of 6 months may increase the risk of developing allergic symptoms" (p87) "…Evidence now supports treating peanuts the same as any other foods and introducing them at around 6 months of age (assuming that peanut is fed in a suitable physical form, such as a paste, and not as the whole nut)" (p91) "Advice for parents: • Solid foods should be introduced at about 6 months of age • Introduce a variety of foods – foods can be introduced in any order although iron-rich foods should be offered first • Continue breastfeeding while introducing solid foods" (p90)
ASCIA (March 2016) [13]	"introduce foods according to what the family usually eats, regardless of whether the food is considered to be a common food allergen." "raw egg is not recommended." (Note: food safety advice) "There is good evidence that for infants with severe eczema and/or egg allergy, that regular peanut intake before 12 months of age can reduce the risk of developing peanut allergy. If your child already has an egg allergy or other food allergies or severe eczema, you should discuss how to do this with your doctor".

Table 2 Comparisons of Breastfeeding Recommendations from WHO, NHMRC and ASCIA

Organisation	Statements Regarding Breastfeeding Recommendations
WHO) (2003)[17]	"…exclusive breastfeeding for the first 6 months of life (180 days)" "…breastfeeding continues for up to two years and beyond"
NHMRC Infant Feeding Guidelines (2015 revision)[12] and NHMRC Australian Dietary Guidelines (2013)[30]	"Breastfeeding is beneficial for infants, mothers, families and society, and is viewed as the biological and social norm for infant and child feeding" "Breastfeeding exclusively to around 6 months is compatible with achieving the lowest rates of allergic disease" "Encourage, support and promote breastfeeding to around 6 months of age." "Continue breastfeeding with appropriate complementary foods until 12 months of age and beyond, for as long as the mother and child desire."
ASCIA (March 2016)[13]	"Breastfeeding is recommended for at least 6 months and for as long as mother and infant wish to continue. There is no consistent evidence that breastfeeding is effective for the prevention of allergic disease. However, breastfeeding is recommended for the many benefits it provides to mother and infant." "Breastfeeding during the period that complementary "solid" foods are first introduced to infants from 4-6 months may help reduce the risk of the infant developing allergies, although evidence for this is low."

Table 3 Comparisons of Statements Regarding Breastmilk Substitutes and allergy prevention from WHO, NHMRC and ASCIA

Organisation	Statements Regarding Breastmilk Substitutes
WHO (2009) [35]	"A minority of infants will need to be fed on breast-milk substitutes, short term or long term." (p56)
NHMRC Infant Feeding Guidelines (2015 revision) [12]	"..routine use of special formulas for preventing allergy is not recommended." (p81) "For infants with a strong history of atopy, there is limited evidence that hydrolysed formula, in comparison with cow's milk formula, reduces infant and childhood allergy" "There is no evidence that partially hydrolysed infant formula prevents allergic disease when used for supplementary feeds in hospitals, and widespread use for this purpose may undermine breastfeeding." (p81). "The Royal Australasian College of Physicians (RACP) recommends the use of extensively hydrolysed infant formula in infants with proven cow's milk allergy or cow's milk protein intolerance who are not breastfed." (p81). "... if breastfeeding is discontinued for any reason, there is no advantage in using special formulas, except under medical supervision" (p82)
ASCIA (March 2016) [13]	'Based on a recently published review of studies, there is no consistent convincing evidence to support a protective role for partially hydrolysed formulas (usually labelled 'HA' or Hypoallergenic) or extensively hydrolysed formulas for the prevention of eczema, food allergy, asthma or allergic rhinitis (hay fever) in infants or children."