

Management & Prescribing for Cow's Milk Protein Allergy (CMPA) in North East London

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These Guidelines are designed for use by Primary Care Clinicians

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Acknowledgements: These guidelines have been adapted to include local policy and are based on the South East London Prescribing of Hypoallergenic-Formula 2024.

For support with implementing these guidelines at local level, contact your local Prescribing Support Dietitian or Pharmacy and Medicines Optimisation Team.

Summary: These guidelines aim to improve the identification, treatment and management of cow's milk protein allergy (CMPA) in infants and children in Primary Care. The guidelines should be used to promote and facilitate standardised evidenced-based practice including the appropriate use of hypoallergenic formula (HF).

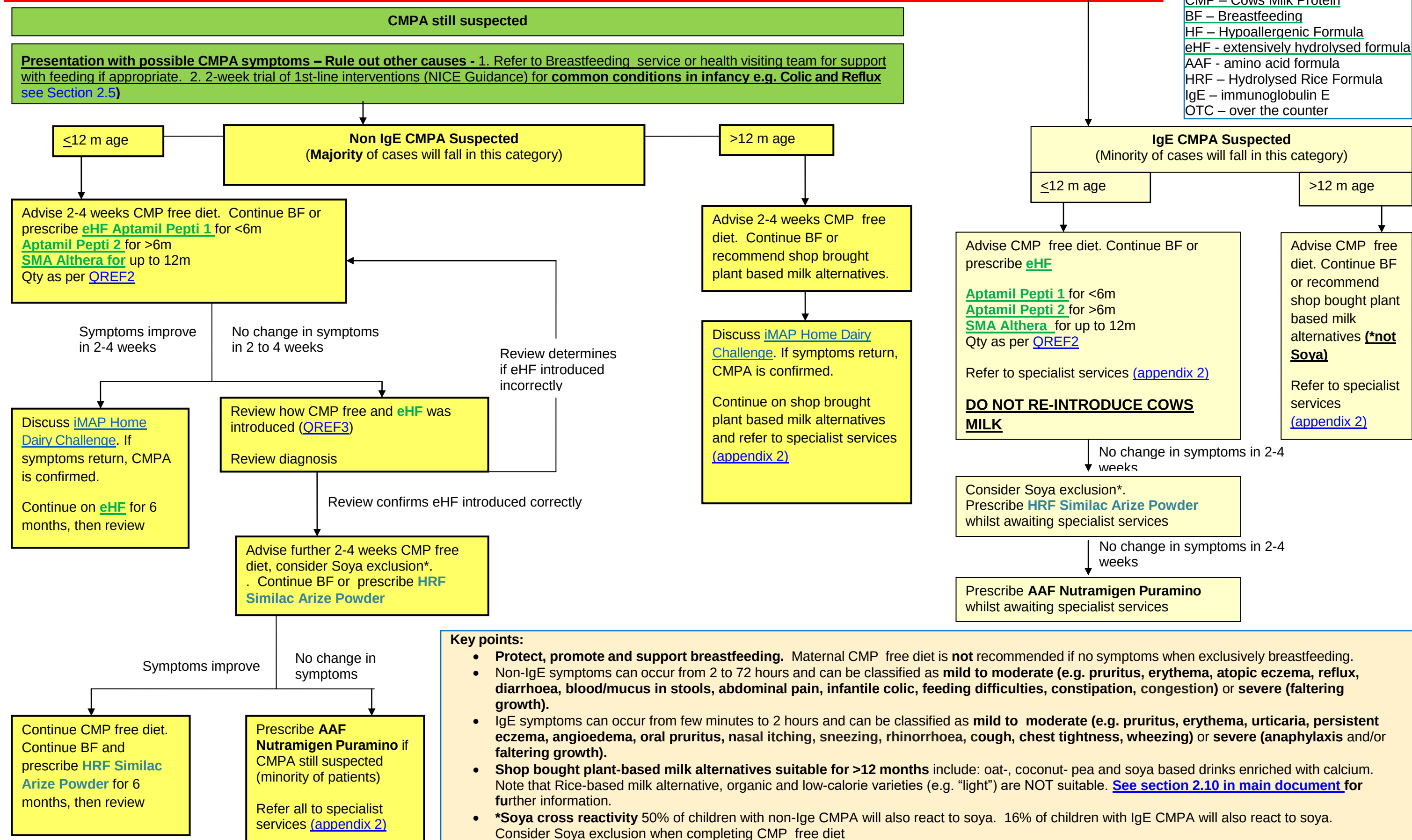
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Abbreviations

Abbreviation used	Meaning
AAF	Amino acid formula
ACBS	Advisory Committee on Borderline Substances
BF	Breastfeeding
CMP	Cow's milk protein
BHRUT	Barking & Havering and Redbridge University Hospitals NHS Trust.
CMPA	Cow's milk protein allergy
eHF	Extensively hydrolysed formula
GP	General practitioner
HCP	Healthcare professional
HF	Hypoallergenic formula (includes both AAF and eHF)
HRF	Hydrolysed Rice Formula
IgE	Immunoglobulin E
iMAP	International Milk Allergy in Primary Care
LRT	Lower respiratory tract
NEC	Necrotising enterocolitis
NELFT	North East London NHS Foundation Trust.
NEL ICB	Northeast London Integrated Care Board
OTC	Over-the-counter
NEL	North East London
Q Ref	Quick Reference
SOB	Shortness of breath
URT	Upper respiratory tract
Specialist Services	Any non primary care services with a speciality e.g. community dietitians, hospital dietitians, allergy departments etc

Complete **Allergy-focused clinical history** ([appendix 1](#)), refer to [symptoms table](#) to determine if **IgE or non-IgE** allergy (onset is key > 2 hours likely non-IgE, < 2 hours likely IgE) (note, majority of cases will be Non-IgE) **If IgE CMPA suspected then commence CMP free advice**

Abbreviations
 CMPA – Cow's Milk Protein Allergy
 CMP – Cows Milk Protein
 BF – Breastfeeding
 HF – Hypoallergenic Formula
 eHF - extensively hydrolysed formula
 AAF - amino acid formula
 HRF – Hydrolysed Rice Formula
 IgE – immunoglobulin E
 OTC – over the counter



Q Ref 2 - Hypoallergenic Formulas and Volume Guide NEL

Key
Green – Prescribe first-line CMPA.
Yellow – Prescribe Second Line CMPA – prescribe if first line fails.
Blue - Prescribe Third Line CMPA – prescribe if second line fails.
Amber – Do NOT prescribe in primary care without a written request with justification and regular review from a dietitian.
Red – Do NOT prescribe

Abbreviations
CMPA – Cow’s Milk Protein Allergy
CMP – Cows Milk Protein
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eHF - extensively hydrolysed formula
AAF - amino acid formula
HRF – Hydrolysed Rice Formula
IgE – immunoglobulin E
OTC – over the counter

Product	Age range	Drug Tariff Price per 400g	Type	Dietary Information	Notes
First-line for CMPA diagnosed in primary care: Extensively hydrolysed formulas (eHF)					
Aptamil Pepti 1® (400g/800g) Aptamil Pepti 2® (400g/800g) (Nutricia)	Birth to 6 months 6 months to 2 years	£10.98	eHF	Kosher	Whey-based and contains lactose - may be more palatable for infants who have started weaning Contains prebiotic oligosaccharides
SMA Althera® (400g) (Nestle)	Birth to 3 years	£11.04	eHF	Halal, Kosher and vegetarian	Whey-based and contains lactose - may be more palatable for infants who have started weaning
Second-line for CMPA diagnosed in primary care: Hydrolysed Rice Formula (HRF) – only if first line fails					
Similac Arize powder® (Abbot Laboratories Ltd)	From 6 months	£15.25	HRF	Halal, Kosher and vegetarian	Rice based formula – contains 35%MCT
Third-line for CMPA diagnosed in primary care: Amino acid formula (AAF) – only if second line fails					
Nutramigen Puramino® (400g) (Mead Johnson)	From birth	£22.98	AAF	Halal and Kosher	Contains 33% MCT
Products NOT to be prescribed in primary care without a written request with justification and regular review from a dietitian					
Aptamil Pepti Syneo® (400g/800g) (Nutricia)	From birth	£10.98	eHF	Not suitable for Halal, Kosher, Vegetarian	Contains prebiotic oligosaccharides and probiotics Preparation instructions differ to other milk formulas ³ . Not suitable for premature or immunocompromised infants
Nutramigen 1 with LGG® ¹ (400g) Nutramigen 2 with LGG® ¹ (400g) (Mead Johnson)	Birth to 6 months 6 months to 2 years	£12.92	eHF	Not suitable for Halal, Kosher, Vegetarian	Casein-based and lactose-free ² For infants with severe diarrhoea, lactose free eHF is recommended. Contains probiotics - preparation instructions differ to other milk formulas ³ . Not suitable for premature or immunocompromised infants Contains soya oil which is very highly refined and does not routinely cause symptoms.
Neocate LCP® (400g) (Nutricia)	From birth	£25.56	AAF	Halal and Kosher	
Neocate Syneo® (400g) (Nutricia)	From birth	£25.56	AAF	Halal and Kosher	Contains prebiotic oligosaccharides and probiotics Preparation instructions differ to other milk formulas ³ . Not suitable for premature or immunocompromised infants.
SMA Alfamino® (400g) (Nestle)	Birth to 3 years	£25.73	AAF	Halal	Contains 24% MCT and structured lipids. Caution if giving fat soluble vitamin drops in addition, due to vitamin A content.
Nutramigen 3 with LGG® ¹ (400g) (Mead Johnson)	From 1 year	£12.92	AAF	Not suitable for Halal, Kosher, Vegetarian	Casein-based and lactose-free ² Contains probiotics - preparation instructions differ to other milk formulas ³ . Not suitable for premature or immunocompromised infants.
Aptamil Pepti-Junior® (450g) (Nutricia)	From birth	£18.85	eHF	Not suitable for Halal, Kosher, Vegetarian	Whey-based low-lactose eHF containing 50% MCT
Neocate Junior® (400g) (Nutricia)	1 to 10 years	£36.91	AAF	Halal and Kosher	High calorie (1kcal/ml at standard concentration) amino acid-based feed/supplement
Not to be prescribed					
Neocate Spoon® (15x37g sachet) (Nutricia)	From 6 months	£58.95 (15 sachet)		Halal and Kosher	Amino acid-based powder containing vitamins and minerals that mixes with water to form an unflavoured spoonable consistency

Exclusively formula-fed infants: Recommended monthly (28 days) volumes to prescribe based on age

Age	General Advice	Formula quantity
0-3 months	If exclusively formula fed, 150ml/kg/day of formula is required	10 x 400g (4000g)
4-6 months		13 x 400g (5200g)
7-9 months	Early weaning stage. Less formula as solid food intake increases. 120ml/kg/day of formula is required	10 x 400g (4000g)
10-12 months	Advanced weaning stage. Less formula as solid food intake increases	8 x 400g (3200g)
12+ months	Prescription should be stopped at 12 months and if cow’s milk allergy persists, replace with appropriate shop bought plant-based alternatives or foods as part of a balanced toddler diet	

Mixed-fed infants: Recommended monthly (28 days) volumes to prescribe based on formula intake over 24 hours

oz/day	ml/day	Formula quantity	800g tins (Aptamil Pepti® 1 & 2)	400g tins (Althera®, Nutramigen® 1 & 2 with LGG, all AAF)
10oz	300ml	1600g	2	4
14oz	400ml	2000g	3	5
17oz	500ml	2400g	3	6
20oz	600ml	2800g	4	7
24oz	700ml	3200g	4	8
27oz	800ml	3600g	5	9
30oz	900ml	4000g	5	10
33oz	1000ml	4400g	6	11
36oz	1100ml	4800g	6	12

Q Ref 3 – Guide to transition from regular infant formula to hypoallergenic formula

Please note that this guideline is only to be used for infants with suspected non-IgE cow's milk allergy i.e. their symptoms present more than 2 hours after ingestion of cow's milk protein. Do not use this method if the infant presents with rapid onset symptoms (< 2 hours after ingestion of cow's milk protein) such as hives, facial swelling or anaphylaxis.

1

Protect and promote continued breastfeeding where possible

2

Give some time for babies to familiarise with new tastes:

Hypoallergenic formula smells and tastes different to breastmilk, regular infant formula and cow's milk. Adults' sense of taste and smell is different to that of babies – adults have well-established and learned food preferences, which babies do not have yet.

3

Tips to encourage transition if prolonged fussiness:

- Introduce gradually over several days – mixing small amounts in with their regular milk then gradually increase the amount of hypoallergenic formula until they get used to it e.g. start with 1oz hypoallergenic formula (1 scoop) added into regular formula or expressed breastmilk and increase by 1oz (1 scoop) as tolerated until baby is fully transitioned onto hypoallergenic formula.
- Some babies may need to be offered a few times to adapt to the new taste.
- Offer new formula when baby is hungry/thirsty but not "cranky".
- If taste is an issue, consider adding one drop alcohol-free vanilla essence per bottle of formula (on a temporary basis e.g. for 1 week).

4

Some changes can be normal:

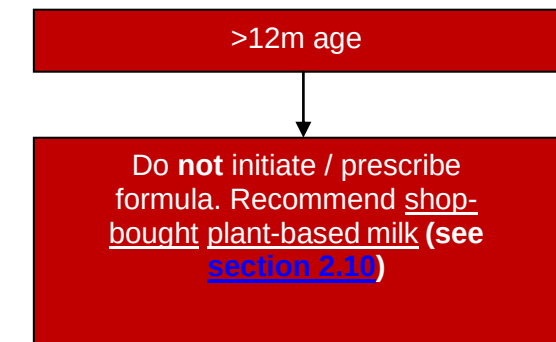
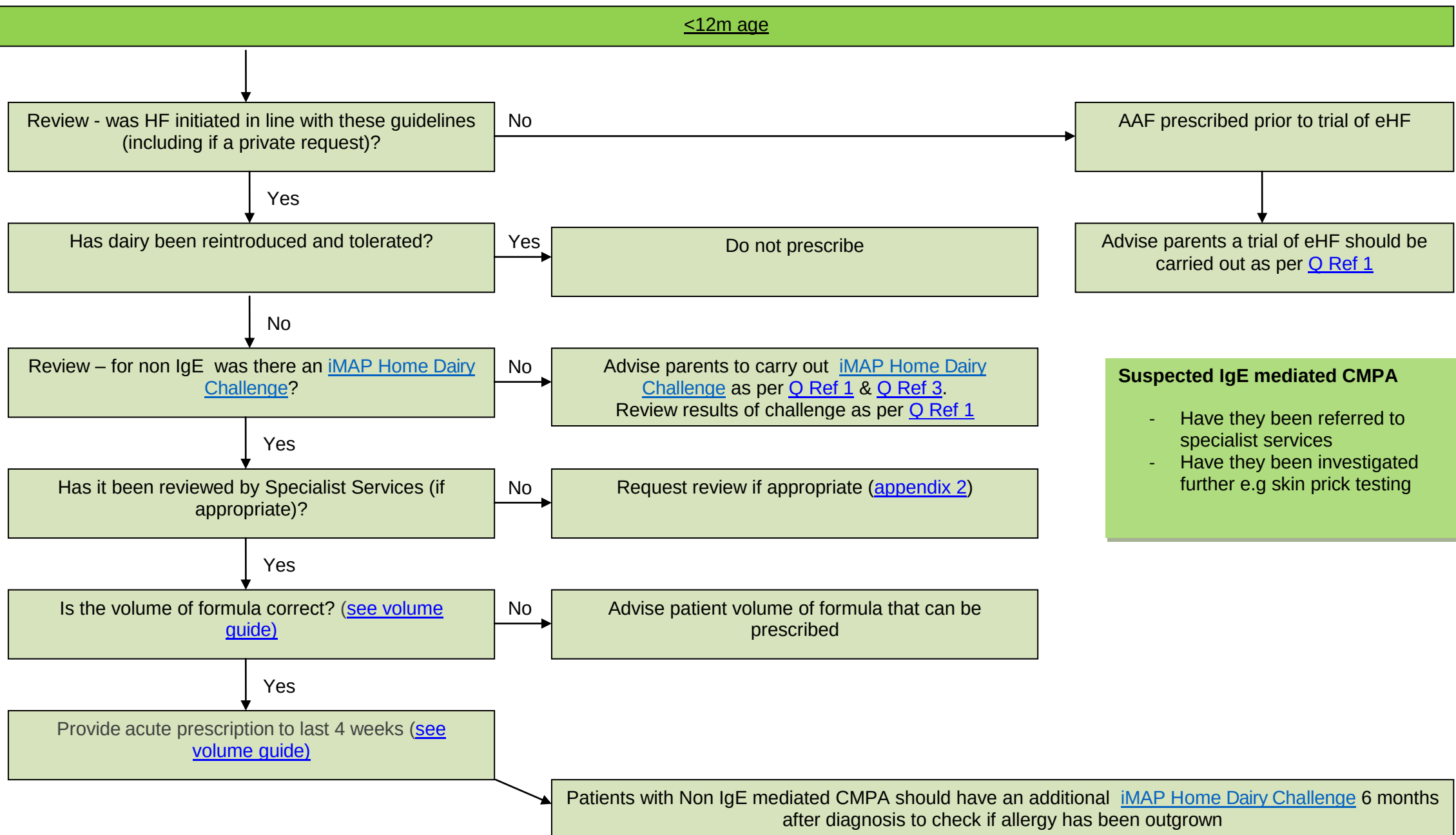
The transition period can result in some changes as baby gets used to new formula

e.g. change in general behaviour, more frequent and looser stools of a green/dark colour, bowel movements could also reduce in frequency and they may have reduced intake for a few days.

This is normal.

Q Ref 4 – Review for repeat prescription request for Hypoallergenic Formula

Repeat Prescription Request:



Abbreviations

CMPA – Cow's Milk Protein Allergy
CMP – Cows Milk Protein
BF – Breastfeeding
HF – Hypoallergenic Formula
eHF - extensively hydrolysed formula
AAF - amino acid formula
HRF – Hydrolysed Rice Formula
IgE – immunoglobulin E
OTC – over the counter

Key points:

N.B Maternal CMP free diet is not recommended if no symptoms when exclusively breastfeeding.

OTC products (do not prescribe) – lactose-free formula, 'anti-reflux' formula, 'comfort' formula, carobel

Neocate Junior requested – This product **MUST NOT** be initiated without dietetic justification (not a follow-on formula).

***Soya cross reactivity** 50% of children with non-IgE CMPA will also react to soya. 16% of children with IgE CMPA will also react to soya. Consider Soya exclusion when completing CMP free diet.

Prescription Review guide

- Confirm that the diagnosis of CMPA has been documented in the prescription request letter before issuing a repeat prescription. Allergy status should be noted on the patients care records.
 - Add: next **review date** (review prescription against volume based on age or intake every 3 months) and **prescription end date** within dosage instruction (date when child is 12m of age)
 - Adjust volume:
 1. Volume recommendation from dietitian letter
 2. If not available, use [volume recommendation](#) ([see Q Ref 2](#)) based on age/intake
 - Child should transition from formula to an appropriate [shop-bought plant-based milk alternative](#) - from 12 months of age
 - Stop prescription if:
 - tolerating dairy in diet
 - >12 months of age: unless advised by dietitian (check recent dietetic letter)
- Neocate Junior:** Ensure that dietetic review has been completed within the last 6 months and re-refer if no evidence of dietetic input within the last 6 months.

Volume Guide:

1. Volume required if mixed-fed
(Based on daily intake of formula as reported by carer)

oz/day	ml/day	g/28 days
10oz	300ml	1600g
14oz	400ml	2000g
17oz	500ml	2400g
20oz	600ml	2800g
24oz	700ml	3200g
27oz	800ml	3600g
30oz	900ml	4000g
33oz	1000ml	4400g
36oz	1100ml	4800g

2. Volume required if exclusively formula fed

Age	g/28 days
0-3 months	4000g
4-6 months	5200g
7-9 months	4000g
10-12 months	3200g

Section 2 – Diagnosis, Prescribing and Review

2.1 Introduction

Cow's milk protein allergy (CMPA) typically presents in the first year of life and affects approximately 2.4% of infants in the UK¹, with a lower likelihood in exclusively breastfed infants². Most children outgrow non-immunoglobulin E (non- IgE) mediated allergy within 1 year of diagnosis, while IgE-mediated CMPA may be outgrown later³.

The majority of infants with non-IgE CMPA are managed in primary care, and there is evidence of significant variation in practice (such as over interpretation of symptoms therefore resulting in over diagnosis of CMPA³ and inappropriate prescribing of HF), frequent delays in diagnosis and sub-optimal management of infants with a suspected CMPA. This has resulted in poorer quality of life for families; high numbers of GP visits (average of 9 weeks with numerous GP visits before child was diagnosed correctly with CMPA) and therefore delay in initiation of appropriate diet⁴.

The cost of HF prescribed in Apr 2024- Mar 2025 was ≥£900K in North East London (NEL), with a total of 5603 items being prescribed. 81% of this spend (3456 items) is attributed to amino acid-based formula (AAF). Only 18% of all HF prescriptions were for extensively hydrolysed formula (eHF) (a total of 2147 items prescribed), while NICE recommends that eHF is tolerated by 90% of infants with CMPA⁵. The implication of which suggests there is potential to significantly reduce spending on HF with more appropriate prescribing as AAF is twice as expensive as eHF. Hydrolysed rice formula (HRF), offers a medium cost-effective alternative for managing CMPA as it is priced between eHF and AAF. Unnecessary specialised formula use may make a significant contribution to free sugars consumption in young children⁶.

2.2 Scope

This guideline aims to support health care professionals (HCPs) in the clinical management of CMPA, best practice for prescribing HF and local referral pathways within NEL.

It is designed for use by general practitioners (GPs), medicines optimisation teams, acute and community dietitians, health visitors, pharmacists and other HCPs involved in the care of infants and children who present with CMPA.

2.3 Breastfeeding

Breast milk is the ideal source of nutrition for infants. It is rare that breastfeeding would need to stop for infants diagnosed with CMPA. Every effort should be made to support and encourage the continuation of breastfeeding where it is clinically safe. Less than 1% of infants react to cow's milk proteins transferred via breast milk as this rarely triggers an allergy response^{2, 7}.

Mothers do not need to exclude dairy if there are no clinical symptoms of CMPA while breastfeeding. It has been suggested that CMPA is only likely when exclusively breastfeeding if an infant presents with e.g. persistent blood in stool, uncontrolled eczema (despite appropriate topical steroid usage) and/or faltering growth¹⁹.

CMPA related symptoms often present at a similar time to common infant conditions such as colic and reflux (usually in the first weeks/months of life). This period also coincides with

mothers trying to establish breastfeeding. It is important to refer mothers whose infants have feeding difficulties for support with breastfeeding. This ensures breastfeeding technique is optimised and that common infant conditions are addressed with first line treatments.

2.4 Specialist Services

The term specialist service includes any non primary care services that are more specialized. E.g. Community pediatric dietitians, hospital dietitians and allergy specialists. These services vary across the different Boroughs and Acute Trusts in NEL. Hence, wherever there is a reference to specialist services please look up the services in the area as listed in [appendix 2](#).

Specialists may have a variety of reasons for commencing patients on AA formula, hence the formulary allows this within the Amber section [Q Ref 2](#).

2.5 Treatment of common infant conditions

Key Messages	
	- At least 40% of infants in the UK have reported reflux⁸, 20% have colic⁹; while only 1.7% of infants in the UK are affected by non-IgE CMPA¹ - Irritability, colic or reflux symptoms may be due to feeding techniques – assess or refer to health visiting or infant feeding team for support - Infants presenting with the above symptoms, should be advised to trial 1st line treatment for at least 2 weeks before suspecting CMPA - If symptoms involve multiple systems (e.g. skin, respiratory, gastrointestinal) CMPA should be considered earlier. Do not prescribe 'anti-reflux' formula, lactose free formula or 'comfort' formula
1st line treatment for common childhood conditions	Reflux/GORD: NICE (NG1): GORD in children and young people,⁸ Diagnosis GORD in children CKS and Prescribing for GORD in children CKS Colic: NICE Knowledge summary: Colic – infantile¹⁰ Lactose intolerance is not an allergy and occurs as a result of a deficiency of the lactase enzyme in the intestine. Symptoms occur as a result of lactose malabsorption and include abdominal distension, abdominal pain and diarrhoea Secondary lactose intolerance most commonly occurs following infectious gastroenteritis causing temporary injury to the gut mucosa. This usually resolves within a 6-8 weeks. Parents can be advised to use lactose-free formula purchased OTC until symptoms resolve. Breast-feeding mothers do not have to exclude lactose (as breast milk is naturally high in lactose) Primary lactose deficiency is very rare in children under age 3 years¹¹. It is due to a congenital decline in lactase enzymes over time
Formula available OTC	The following formulas must NOT be prescribed . Parents may be advised to purchase OTC for mild reflux, colic or temporary lactose intolerance: 'Anti-reflux' formula, Lactose free formula, 'Comfort' formula
Resources for parents	Reflux: Living with Reflux Gastro-oesophageal Reflux Disease - includes a community forum for parent/carer support Colic: Support For Crying And Sleepless Babies Cry-sis Helpline number: 0800 448 737 (7 days a week 9am-10pm)
Referrals required	- Specialist services (appendix 2), if required, as per guidelines - Refer to health visiting/infant feeding team for breastfeeding assessment and feeding support

2.6 Diagnosis and Management of Cow's Milk Allergy

Step 1: Presentation

Key Messages
- The immune response to cow's milk protein can be subdivided into IgE and non-IgE CMPA¹². - Infants presenting with possible non-IgE CMPA symptoms, should be advised to trial 1st line treatment for at least 2 weeks before suspecting CMPA - Diagnostic pathway is different for suspected non-IgE (Step 2) and IgE CMPA (Step 4). An allergy focused clinical history (appendix 1) is necessary to ensure correct diagnostic pathway. - Diagnosis for suspected non-IgE CMPA is a two-step process: 1. Elimination diet for at least 2-4 weeks. 2. iMAP Home Dairy Challenge to confirm or exclude CMPA

Allergy Focused Clinical History

Completing an [Allergy-Focused Clinical History \(appendix 1\)](#) is a key step in appropriately assessing the likelihood of CMPA and supports with distinguishing the presentation of CMPA as per Table 1.

Table 1: Presenting symptoms that may be associated with CMPA, adapted from NICE¹³

Presentation	Non-IgE (Symptom onset: 2-72 hours)	IgE (Symptom onset: minutes – 2 hours)
Skin	Pruritus Erythema Atopic eczema	Pruritus Erythema Urticaria Angioedema: commonly of the lips, face and around the eyes Flaring of persistent atopic eczema
Gastro intestinal	Gastro-oesophageal reflux disease (GORD) Loose or frequent stools Blood and/or mucous in stools Abdominal pain Infantile colic Food refusal or aversion Constipation – especially soft stools with excess straining Faltering growth with at least one or more of above symptoms (severe)	Angioedema of the lips, tongue and palate Oral pruritus Vomiting Diarrhoea Faltering growth with at least one or more of above symptoms (severe)
Respiratory (Usually in combination with other symptoms)	Lower respiratory tract (LRT) — cough, congestion	LRT— cough, chest tightness, wheezing, or shortness of breath (SOB) Upper respiratory tract (URT) — nasal itching, sneezing, rhinorrhoea Anaphylaxis involving respiratory and/or cardiovascular system signs and symptoms (Severe)

Step 2: Diagnostic pathway for suspected non-IgE CMPA (Skip to step 4 for IgE)

Key Messages	
• Diagnosis is a two-step process: elimination diet for 2-4 weeks and iMAP Home Dairy Challenge to confirm or exclude CMPA^{2,12} • Only advise maternal CMP free diet if you suspect that child is reacting to cow's milk proteins transferred via breast milk • Before diagnosis of non-IgE CMPA is confirmed, provide an acute prescription only • HF to be prescribed as per Q Ref 1 and Q Ref 2 • Do not initiate HF for children over 12 months	
Diagnostic Two-step process	1. Trial of strict CMP exclusion (2-4 weeks) • Exclusively breastfed fed: maternal CMP free diet • Mixed-fed*/exclusively formula fed: HF and CMP free diet for infant • Advise maternal CMP free diet if exclusively breastfeeding or if mixed fed infants' symptoms do not improve on eHF i.e. you suspect that child is reacting to cow's milk proteins transferred via breast milk • Children over 12 months: advise CMP free diet and shop bought plant-based milk alternatives as main drink (see section 2.10) 2. If symptoms improve, challenge with dairy after 2-4 weeks using iMAP Home Dairy Challenge¹² • CMPA confirmed if symptoms return after challenge with dairy • CMPA excluded if no change or no return of symptoms after challenge with dairy 3. If symptoms do not improve on eHF, continue strict CMP exclusion (further 2-4 weeks) and trial HRF 4. If symptoms do not improve on HRF, continue strict CMP exclusion prescribe AAF, refer to specialist services Appendix2 <i>Note that alternative diagnostic tests such as Vega testing, homeopathy, iridology, herbal medicine and faecal calprotectin levels are not proven/reliable tests and are not recommended for the diagnosis of non-IgE CMPA¹⁴</i> *refers to a combination of breast and formula milk
Prescription (for infants under 12 months of age only)	• Prescribe HF as per Q Ref 1 and Q Ref 2 if child is exclusively formula or mixed-fed. • See Q Ref 2 for product names. • Use Q Ref 3 for support for transition onto HF • First acute prescription: 2 x 400g tins (or 800g) to establish acceptance • If accepted: second acute prescription to last the 2-4 weeks trial
Volume guide	• Exclusively formula fed: use volume guide according to age as per Q Ref 2 • Mixed fed infants: Ask parent for their total intake per day to determine the volume to prescribe.
Resources for parents	GP Infant Feeding Network - iMAP Home Dairy Challenge , CMPA information sheet for parents , CMPA information sheet for breastfed infant ¹²
Referral	• As per Q Ref 1 if required • Refer to specialist service if child has faltering growth (see appendix 2)

Step 3: Ongoing management for confirmed Non-IgE CMPA

Ongoing management	• Primary Care led or Specialist led depending on the Borough (appendix 2) advise on: - CMP free complimentary feeding - Gradual dairy reintroduction after 6 months or when infant is 9-12 months whichever is first (iMAP Milk Ladder)¹² - Transition onto shop bought plant-based milk alternative at 12 months • Children with persistent CMPA at 12 months should transition onto plant-based milk alternative (see Section 2.10) in place of formula provided there are no concerns raised regarding growth or nutritional adequacy of diet.
Prescription	Provide a repeat prescription for HF only if diagnosis is confirmed by positive dairy challenge .e.g. using (iMAP Home Dairy Challenge) ¹²
Referral	Refer to specialist services (appendix 2) if concerns raised regarding growth and/or nutritional adequacy of diet beyond 14 months of age

Step 4: Diagnostic pathway for suspected IgE CMPA

Key Messages	
1. Refer all children suspected IgE CMPA to allergy clinic Appendix2 for appropriate testing and management 2. Diagnosis does not require home dairy challenge Q Ref 1 3. Do not initiate HF for children over 12 months	
Diagnosis	Appropriate tests in specialist allergy service. Suspect IgE CMPA when symptoms (see Table 1) occur within 0-2 hours of exposure to dairy. Do not advise home dairy challenge to confirm diagnosis.
Medical treatment	• Only advise maternal CMP free diet if you suspect that child is reacting to cow's milk proteins transferred via breast milk or if mixed fed infants' symptoms do not improve on eHF • Exclusively breastfed: Strict maternal CMP free diet • Mixed fed/exclusively formula fed: prescribe HF Q Ref 1 and recommend CMP free diet for infant. • Children over 12 months: advise CMP free diet and shop bought plant-based milk alternatives in place of formula
Prescription (for infants under 12 months of age only)	Acute prescription: 2 x 400g tins (or 800g) to establish acceptance. If accepted: prescribe ongoing until further recommendation from specialist allergy service • Prescribe EHF in line with Q Ref 1 if child is exclusively formula or mixed-fed • See Q Ref 2 for product names. • Use Q Ref 3 for support for transition onto HF
Volume guide	• Exclusively formula fed: use volume guide according to age • Mixed fed infants: Ask parent for their total intake per day to determine the volume to prescribe • Refer to Q Ref 2 for volume guide according to age/intake

Resources for parents	Allergy UK Anaphylaxis Campaign Provide a management plan to carers. Templates for management plans are available on the Paediatric Allergy Action Plans - BSACI
Referral	<i>Specialist Allergy Service to confirm diagnosis with appropriate tests and provide support for ongoing management</i> <i>Please see appendix 2 for contact details and how to refer to the above services</i>

Step 5: Ongoing management for confirmed IgE CMPA

Ongoing management	• Strict CMP free diet. Allergy team may provide advice for reintroduction of dairy where appropriate and will advise on dairy-free complimentary feeding • Children with persistent CMPA at 12 months should transition onto plant-based milk alternative (see Section 2.10) in place of formula provided there are no concerns raised regarding growth or nutritional adequacy of diet
Prescription	• See Q Ref 2 for product names.
Volume guide	• Exclusively formula fed: use volume guide according to age. • Mixed fed infants: Ask parent for their total intake per day to determine the volume to prescribe Refer to Q Ref 2 for volume guide according to age/intake

2.7 Reviewing prescriptions for HF

- Volumes of HF prescribed should be reviewed by the primary care clinician **every 3 months** in order to ensure that the prescription meets the needs of the child. See [Q Ref 2](#) for recommended volumes
- The HCP requesting the prescription (e.g. paediatric dietitian) should provide an **end date** on their correspondence.
- The GP/pharmacist should also record the end date and review date on their electronic record system, and request a prescription end date from the requesting HCP if this was not provided
- Unless otherwise advised by a specialist, the end date for the prescription should be the date at which the child is **12 months old**
- In rare cases, where a specialist has recommended continuing the prescription beyond 12 months, clear justification must be provided, and the dietitian should review at least every 6 months. If there is no review within 6 months of the initial request to continue, the prescription should be stopped
- The parent/carer should be provided with support for transitioning to an appropriate shop-bought plant-based milk alternative from 12 months of age, until cow's milk is tolerated.

Patients discharged from dietetic services due to non-attendance/cancellation:

- **Primary Care HCP:** Review and stop or change prescription according to these guidelines.
- **Dietitians:** Letter to GP should advise stopping the prescription for HF if non-IgE CMPA has not been confirmed and/or the child is older than 12 months of age.

2.8 Inappropriate prescribing of HF

Table 2): Inappropriate prescribing of HF and actions to take

Scenario	Action	Justification
Any HF prescribed for unconfirmed non-IgE CMPA i.e. no evidence of positive dairy challenge	Non-IgE mediated CMPA iMAP Home Dairy Challenge to be carried out to confirm CMPA	Prescription cannot be considered clinically appropriate.
AAF or HRF prescribed for CMPA without 2-4 week trial of eHF	Non-IgE mediated CMPA Stop AAF/HRF and trial eHF as per Q Ref 1 and Q Ref 2 unless there has been a letter from NHS specialist advising AAF/HRF	Prescription cannot be considered clinically appropriate.
Volume for HF exceeds what is recommended for age.	Reduce prescription to age-appropriate volume or review volume required with parent/carer. Refer to volume guide in Q Ref 2 .	Excessive volumes incur unnecessary cost and may lead to waste. Child's intake may exceed what is recommended for age and may compromise nutritional intake e.g. from solid food.
Lactose-free, "anti-reflux" or "comfort" formula is prescribed	Parent/carer is advised to purchase product OTC from supermarket or pharmacy.	These products are available commercially at a similar cost to that of standard formula. NEL ICB does not support their prescription.
Any HF prescribed for child is older than 12 months and there is no correspondence from a paediatric dietitian justifying a need to continue HF beyond 12 months	Stop prescription for HF and recommend transition to a shop bought plant-based milk alternative Refer to section 2.10 for recommended products. Refer to the specialist services (see appendix 2) if there are any nutritional concerns e.g. growth concerns or restricted diet.	Children with CMPA can transition to a plant-based milk alternative with added calcium, provided they are growing well and their nutritional intake is otherwise sufficient i.e. cow's milk is the only food requiring substitution.
Neocate Junior® is prescribed without clear justification from a paediatric dietitian.	Stop prescription and recommend transition to a shop bought plant-based milk alternative. Refer to section 2.10 for recommended products. If there are nutritional concerns and child is 12-24 months old, change to previously prescribed HF and refer to specialist services (see appendix 2) for review.	Neocate Junior® is not a follow-on formula for AAF. It requires dietetic justification and review.

Scenario	Action	Justification
Neocate Junior® is prescribed for CMPA and was requested by a paediatric dietitian but there has been no dietetic review for more than 6 months.	Refer to specialist service (see appendix 2) for review. Continue supply for one additional month to give time for follow up with dietitian for review.	Prescription cannot be considered clinically appropriate.
HF prescribed due history of necrotising enterocolitis (NEC) with subsequent malabsorption. Child is now older than 6 months.	Refer to local specialist services (appendix 2) for advice on appropriate reintroduction of cow's milk protein. If child is older than 12 months corrected and growing and eating well, stop prescription for HF and recommend transition to a shop bought plant-based milk alternative. Refer to section 2.10	Children with a history of NEC requiring HF are often managed as having presumed non-IgE CMPA. They are likely to acquire tolerance to cow's milk proteins from 6 months after commencing HF or from complementary feed age.

2.9 General recommendations for CMP free diet

The dietary recommendations for children with CMPA vary depending on their feeding regime. Breast milk is the ideal nutrition for infants with CMPA and any decision to initiate an elimination diet must include measures to ensure that breastfeeding is actively supported. Infants with CMPA with/without eczema are at higher risk of food allergies and may benefit from the introduction of foods such as egg and peanut¹⁸ from 4-6 months when they are showing [signs of readiness to wean](#)

Table 3: General recommendations for CMP free diets

Exclusively breastfed	Exclusively formula-fed or mixed-fed	Taking solids
*Recommend exclusive breastfeeding for 26 weeks (6 months), with continued breastfeeding up to 2 years and beyond. *Only recommend maternal CMP free diet if it is clear that the child is symptomatic following breast milk ingestion *Milk alternatives for dairy free mothers: soya, oat, coconut, pea, nut-based milks fortified with calcium (and iodine and vitamin B12 if maternal diet is predominantly plant-based) *Consider additional maternal soya exclusion if the infant remains symptomatic (but symptoms have partially improved). Seek advice from a paediatric dietitian (appendix 2)	*Replace cow's milk formula with an appropriate HF (see Q Ref 1 and Q Ref 2.) *For mixed-fed infants, if symptoms occurred only with the introduction of top-up formula feeds, replace these with HF top-ups and the mother can continue to consume foods containing cows' milk protein. *For mixed-feeding, refer mother to local specialist/additional breastfeeding support for support with return to exclusive breastfeeding or increased breast milk if this is mother's choice.	*Exclude all CMP from the child's diet and recommend a suitable milk alternative. *Introduce CMP-free complimentary foods no earlier than 17 weeks (4 months) but by 26 weeks (6 months). *Consider additional soya exclusion if the child remains symptomatic (but symptoms have partially improved). Seek advice from a paediatric dietitian (see appendix 2)

2.10 Shop bought plant-based milk alternatives

Plant-based milk alternatives with added calcium, vitamin d and iodine should be encouraged to use in foods/cooking from 6 months of age. These will be highlighted on the front of the packaging. Most children can safely transition onto these milk alternatives in place of formula from 12 months of age, provided they are eating well and growing well. The transition should only take a few days. Rice milk is not suitable for children under the age of 5 years and is not a suitable follow on from the rice based infant formula.

Re-refer to specialist services (see [appendix 2](#)) or consult with the prescribing support specialist services if concerns are raised regarding faltering growth (<https://www.nice.org.uk/guidance/ng75>) and/or nutritional adequacy of the diet for bespoke support for this transition.

Suitable plant-based milk alternatives	Unsuitable plant-based milk alternatives
We recommend products containing a minimum of 40kcal, 1g protein and 120mg calcium per 100ml made from plant-based sources such as (provided not allergic to);, Oat, Coconut, Pea, Soya Blends of these listed	Organic varieties "Light" varieties Rice milk is not suitable for children under 5 years of age Mammalian milks such as goat or sheep milk

2.10.1 Benefits of transitioning onto plant-based milk alternatives

- Helps to normalise toddler diet as much as possible
- Plant-based milk alternatives are more palatable than HF
- Plant-based milk alternatives are ready to use and readily available in supermarkets
- The majority of these products contain more calcium and protein compared to HF

2.10.2 Useful tips for transitioning

- Prompt introduction of plant-based milk alternatives during the complimentary feeding stage in food and recipes (i.e. adding into cereals, porridge, mashed potatoes and white sauces) is likely to support acceptance of taste when transitioning from formula to plant-based milk at 12 months
- If a straight swap from formula to a plant-based milk alternative is not successful, introduce it gradually over several days as tolerated

2.10.3 From 12 months of age

- Milk is not essential as a drink
- If plant-based milk alternatives are not accepted as a drink, ensure child has other adequate calcium-rich foods in the diet e.g. fortified cereals, tinned fish, tofu, plant-based yoghurt/cheese and/or incorporate plant-based milk alternatives into foods/cereals
- Calcium requirements aged 1-3 years is 350mg/day which is roughly 2-3 portions per day¹⁵

2.11 Vitamins & Minerals

- The Department of Health and Social Care recommends that babies from birth to 12 months should have a daily supplement containing 8.5 to 10mcg of vitamin D throughout the year if they are breastfed or having less than 500ml formula daily¹
- Children aged 1-4 years should be given a supplement containing 10mcg/day of vitamin D¹⁶
- Any supplements should be checked to ensure they are CMP free.

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- Mothers should be advised to meet daily calcium (1250mg/day) and vitamin D (10mcg/day) requirements, which usually requires additional calcium and vitamin D supplementation
- Mothers and children eligible for NHS Healthy Start scheme can obtain free Healthy Start vitamin drops (these contain vitamin A, C and D)¹⁷

2.12 Private prescription requests

Any prescription requests for CMPA from private HCP have to be in line with this guidance. Primary care clinicians should only action any request provided it is in line with these guidelines. Further information on dealing with private prescription requests is available [here](#)

Appendix 1

Allergy-focused Clinical History for Suspected Cow's Milk Protein Allergy in Infancy
(Adapted from iMAP and RCPH guidelines)

Start from question number 2 if child presents with immediate symptoms (e.g. likely IgE symptoms)

1) Resolution of symptoms (only if child presents with reflux/vomiting, constipation, colic, eczema and diarrhoea)

Treatment of symptoms before considering cow's milk protein allergy

Symptoms	Treatment and considerations
☐ Reflux/Vomiting	Review of bottle volume, positioning during feeds; Assessment of weight gain; Trial of thickener (e.g. carobel, Gaviscon) or anti-reflux formulas. Consider trial of PPI 2-4 weeks.
☐ Constipation	Optimisation of fluid intake; Trial of medication (e.g. lactulose, macrogol, glycerine chip suppository).
☐ Colic beyond 4 months	Trial of other formulas (e.g. Comfort, other brands), Massage; Trial of medication (e.g. colic relief, l-reuteri).
☐ Eczema	Appropriate emollient usage (https://cks.nice.org.uk/topics/eczema-atopic/prescribing-information/emollients/), topical steroids.
☐ Diarrhoea	Assessment of stool sample; considered if other family members with similar symptoms and/or if previously tolerating formula

- ☐ No resolution of symptoms after at least 2 weeks of treatment / onset

2) Symptoms

Manifestation:

- ☐ Single symptom
- ☐ Multiple symptoms (more likely to be CMPA, consider earlier intervention)

Onset of symptoms (choose all that apply):

- ☐ Occurs within 1-2 hours of ingestion (IgE mediated – usually within minutes, but can be up to 2 hours)
- ☐ Occurs up to 72 hours after ingestion (Non-IgE mediated – usually symptoms occur after 2 hours and up to 72 hours)
- ☐ Symptoms reoccur with each exposure

Types of symptoms (chose all that apply):

Non-IgE	IgE
• Symptoms consistently develop 4-72 hours after eating and consist of one or more of:	• Symptoms consistently develop < 2 hours after eating (usually in minutes after) and consist of one or more of:
☐ Gastro oesophageal reflux / recurrent vomiting <i>(may present as food aversion or nasal congestion as well)</i> ☐ Loose or frequent stool ☐ Blood / mucus in the stool in otherwise well infant <i>(constipation can cause anal tears with blood in stool so perianal area needs to be examined)</i> ☐ Perianal redness ☐ Persistent abdominal pain / irritability with colic ☐ Moderate persistent eczema despite optimal treatment ☐ Constipation (with limited response to treatment)	☐ Urticaria/hives ☐ Swelling/angioedema ☐ ACUTE onset cough with eating dairy (each time) <i>(unable to catch breath not intermittent mild)</i> ☐ Wheeze ☐ Stridor (croup like noise on a breathing in) ☐ Floppy/confusion/lethargy/collapse <i>(this is due to low blood pressure)</i>
☐ Faltering growth +1 or more gut symptoms listed above	
☐ Itching (delayed) <i>honestly very difficult to assess in patients with poorly controlled eczema</i>	☐ Itching (acutely) <i>i.e. rapid onset itching with eating suspect food eczema flare as a result may take days to settle</i>
☐ Other- growth faltering	

3) Source of cow's milk protein thought to cause symptoms

- ☐ Exclusively breastfeeding (cow's milk protein from maternal diet – very low risk of allergic response)
- ☐ Mixed feeding – symptoms started when formula was introduced
- ☐ Mixed feeding – symptoms develops when formula feeding and breastfeeding
- ☐ Exclusively formula-feeding
- ☐ Dairy in child's diet – exclusively breastfed and symptoms started when dairy was introduced in diet

Other comments: _____

4) Family history of food allergy and atopic diseases in father, mother and/or siblings

- ☐ Atopic dermatitis
- ☐ Asthma
- ☐ Allergic rhinitis
- ☐ Food allergies

Note that a reported immediate family history of atopy along with symptoms of suspected CMPA makes the diagnosis more likely (although it does not confirm); this applies to both IgE mediated and Non-IgE mediated presentations

Other comments: _____

Appendix 2 – Specialist Services

	Service Provided	Service Provided by (organisation)	Email of service for HCP's	Phone contact for service for HCP's	Any specific inclusion / exclusion criteria (link is okay)	How to refer (link is okay)
Havering	Paediatrics Dietitian Service (that covers CMPA)	NELFT	Haveringdietitians@nelft.nhs.uk	0300 300 1783	Non-IgE Mediated only (see referral link)	https://www.nelft.nhs.uk/services-havering-nutrition-dietetics
Redbridge	Paediatrics Dietitian Service (that covers CMPA)	NELFT	Redbridge.Paedsdietitians@nelft.nhs.uk	0300 300 1889	Non-IgE Mediated only (see referral link)	https://www.nelft.nhs.uk/services-redbridge-nutrition-dietetics
Barking & Dagenham	Paediatrics Dietitian Service (that covers CMPA)	NELFT	bddietitians@nelft.nhs.uk	0300 300 1769	Non-IgE Mediated only (see referral link)	https://www.nelft.nhs.uk/services-barking-nutrition-dietetics
City & Hackney	Paediatrics Dietitian Service (that covers CMPA)	Homerton Healthcare	huh-tr.paediatric.dietitiansrefs@nhs.net	0207 014 7028 or 07785 766 772 (3 days a week dietitian admin phones)	See referral form single allergy only and only non-IgE. >1 allergy and IgE allergy to refer to Allergy service. GPs can ask advice via e-mail	GPs to send referral form sent via nhs.net or Paediatric consultants can send referral letter. Those referred by consultant at Homerton hospital are seen at general dietitian clinic in the Homerton hospital/GP referrals seen in community clinic
Newham	Paediatrics Dietitian Service (that covers CMPA)	Barts Health NHS Trust	bartshealth.nuhpaeddiet@nhs.net	0207 363 8200	Maximum 2 food allergies and Newham GP	Paediatric dietetics - Barts Health NHS Trust
Tower Hamlets	Paediatrics Dietitian Service (that covers CMPA)	Barts Health NHS Trust	royallondon.paedsdiet@nhs.net	0203 594 1541	Maximum 2 food allergies and TH GP	Paediatric dietetics - Barts Health NHS Trust
Waltham Forest	Paediatrics Dietitian Service (that covers CMPA)	NELFT	walthamforestdietitians@nelft.nhs.uk	0208 430 8090 ext 78095	All CMPA to be referred WF GP	Nutrition and dietetics- Waltham Forest NELFT NHS Foundation Trust
Havering, Redbridge, Barking & Dagenham	Paediatrics Allergy service (that covers CMPA)	Barts Health - Royal London Hospital (Tertiary)		0207 363 9019		Letter and/or e-referral
City & Hackney	Paediatrics Allergy service (that covers CMPA)	Homerton Healthcare	huh-tr.paedsallergyoutpatientsunit@nhs.net	0208 510 5976	no	Advice a refer (ANR) via GP portal
Newham	Paediatrics Allergy service (that covers CMPA)	Barts Health - Newham Paed with SPIN	bhnt.paedsrlh@nhs.net	0203 594 2481		Letter and/or e-referral
Tower Hamlets	Paediatrics Allergy service (that covers CMPA)	Barts Health - Royal London Hospital (Tertiary)		0207 363 9019		Letter and/or e-referral
Waltham Forest	Paediatrics Allergy service (that covers CMPA)	Barts Health Waltham Forest with SPIN		0208 539 5522 ext. 56832		Letter and/or e-referral

Appendix 3 – Departments and Consulted List

Departments Consulted
BARTS dietitians and allergy departments
BHRUT dietitians and allergy departments
NELFT dietitians and allergy departments
Homerton dietitians and allergy departments

Individuals Consulted
Paediatric Allergy consultant, RLH
GP's
Clinical Director – Havering South PCN
Clinical Director, Havering Liberty PCN
Clinical Director, Havering North PCN
Borough leads
Patient Experts

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