



# Milk prescribing in Doncaster: A practical guide for clinicians.

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## Understanding Cow's Milk Protein Allergy (CMPA)

Cow's milk protein allergy (CMPA) is one of the most common food allergies in infants and young children, affecting only approximately 2–3% of babies in the UK with most outgrowing the allergy by age 5. There are practical guidelines available on how to suspect, manage and diagnose allergy available on the iMAP website. [International milk allergy in primary care guideline 2019 \(iMAP\)](#)

CMPA arises due to an immune response to proteins in cow's milk. This condition may present as either IgE-mediated or non-IgE-mediated allergy, with symptoms ranging from immediate reactions (IgE) to delayed gastrointestinal and skin-related issues (non-IgE.)

[Taking an allergy focussed history –Questions to ask and useful information to include in the referral.](#)

*Dietetics triage each referral via Systm1– If there is a clinical concern, they will aim to see the child in approximately 2-6 weeks, whereas if the baby is stable on CMPA formula they may plan to review at around 5 months of age for weaning advice.*

- 1) How is baby being fed?
  - Exclusive breast feeding - when cow's milk protein from maternal diet comes through in the breast milk (lower risk of clinical allergy)
  - Mixed feeding - when cow's milk protein is given to the breast-feeding infant e.g. top-up formulas, when weaning with solids.
  - Formula-feeding infant - the commonest presentation.
- 2) Presenting symptoms, to include: - if more than one symptom, the sequence of clinical presentation of each one.
  - a. IgE-mediated symptoms: Immediate onset of hives, swelling, vomiting, or anaphylaxis after ingestion of cow's milk.
  - b. Non-IgE-mediated symptoms: May be quite non-specific - Delayed reactions such as diarrhoea, constipation, reflux, colic, eczema, or respiratory issues.
    - Age of first onset (Often around 8 weeks, or at introduction of formula milk)
    - Timing of onset following ingestion (atopic dermatitis - such 'timing' can be very variable) IgE-mediated - usually within minutes but can be up to 2 hours. Non-IgE-mediated - usually after  $\geq 2$  hours or even days
    - Duration, severity, and frequency reproducibility on repeated exposure
    - **Top tip: Please specify in the referral if you think this is this IgE or none IgE mediated allergy.**
- 3) Is there any family history of atopy in parents or siblings? (*Increased risk*)
- 4) Details of any concern with feeding difficulties and/or poor growth? *Weight and centile chart/red book vital here.*
- 5) Details of any changes in diet and any apparent response to such changes.



- 6) Details of any other previous management, including medication e.g. reflux treatment, for the presenting symptoms and any apparent response to this.

## Management Strategies for CMPA

### Breastfed Infants

- Mothers should be supported and encouraged to continue breastfeeding for as long as they wish to as per World Health Organisation guidelines. [WHO guidelines on breastfeeding](#)
- Advise mothers to exclude cow's milk protein from their own diet for 2-4 weeks and ensure dietary adequacy with supplements over the counter such as calcium and vitamin D. There is no need to stop breast feeding. Advice on how to do this can be found below.
- [Dietary advice for breast feeding mums parent info sheet from SYB healthier together.](#)
- [British Society of Dietetics calcium intake advice](#)

### Formula-Fed Infants

- Formula choice should be ABCS approved see [Appendix 1: ACBS Approved Formula](#). None-ABCS formulas should not be prescribed on the NHS.
- GPs should ideally start a trial of CMPA formula whilst waiting for dietetic review.
- Prescribe small quantities at first and advise parents to follow the instructions on the tin which may differ from standard formula preparation.
- Extensively Hydrolysed Formulas (EHF): First-line choice for infants with CMPA.
- Amino Acid Formulas (AAF): Reserve for severe cases or infants who do not tolerate EHF but can also be commenced by GP's whilst awaiting dietetic input if partial response to EHF formula and diagnosis still strongly suspected.
- **Mammalian milks such as sheep, buffalo, horse, or goats' milk are not recommended for infants with cow's milk allergy as they are not adequately nutritious and there is a possibility of cross-reactivity. These should not be prescribed.**

Table 1: Formulary choices in Primary Care

Type of Formula	1 <sup>st</sup> Choice	2 <sup>nd</sup> Choice
Extensively Hydrolysed	<p><b>Nutricia Pepti 1</b></p> <p><b>NOT suitable for vegetarians or Halal</b> ❌</p> 	<p><b>SMA Althera</b></p> <p>Suitable for Vegetarians Halal</p> 



<p><b>Amino Acid Formulas</b></p>	<p><b>Neocate LCP</b></p> <p>Suitable for vegetarians Halal</p> <p>(420g tins)</p> 	<p><b>SMA Alfamino</b></p> <p>Suitable for vegetarians Halal</p> 
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### Top tips for GP's

- There is no need to change to Pepti 2 at 6 months of age, Pepti 1 can be continued for 12 months.
- SMA Althera may be more palatable for babies compared to Aptamil Pepti 1.
- Babies may still need a thickener e.g. Carobel Instant added to the CMPA milks as they are thinner than cow's milk-based formula. These can be purchased OTC.
- To note: Neocate syneo contains pre-and probiotics. It can be prescribed after dietician advice but is not suitable for pre-term infants or those with immunodeficiency.
- **Do not prescribe Lactose free formula, Soya formula, Comfort or Hungry baby milks.**

Table 2: Number of tins to provide on prescription.

Age of Child	Number of tins per 28 days.	Total Volume
2-week trial, any age (To reduce waste in case formula not tolerated)	4x400g tins	1600g
Up to 6 months	13x400g tins	5200g
7-9 months	7x400g tins	2800g
10-12 (Max 13) months	5x400g tins	2000g

### Weaning and Long-Term Care

- Introduce safe solid foods at around six months while avoiding cow's milk and following the milk ladder.
- Videos for parents to watch: <https://patientwebinars.co.uk/condition/food-allergy-in-children/webinars/weaning-on-a-cows-milk-and-or-soya-free-diet/>



- And a leaflet can be found here: <https://patientwebinars.co.uk/wp-content/uploads/2020/03/imap-milk-ladder-for-mild-to-moderate-non-ige-cmpa.pdf>
- Add the appropriate quantity of CMPA milk to the repeat prescription and review at 1 year of age.

#### Other milk substitutes

- Milk drinks such as oat, almond, coconut milk are not suitable for use as the infant's main drink under 1 year of age.
- They can be used as a complimentary food from 6 months of age. Parents should be encouraged to look for brands that have equivalent fats and protein content to cow's milk.
- Rice milk should not be recommended below 5 years of age.

Information on milk alternatives can be found here. <https://www.firststepsnutrition.org/parents-carers>

#### Understanding Lactose Intolerance and Colic

- Primary lactose intolerance is rare in babies. This is likely to be diagnosed and managed by a tertiary centre.
- Toddlers can develop a temporary lactose intolerance after a diarrhoeal illness, and temporary dairy exclusion may be appropriate. Lactose free formula can be purchased over the counter, usually for short term use only.
- Colief® and Infacol® should not routinely be prescribed for colic due to lack of evidence base. These can be purchased OTC. Colief® may occasionally be advised to breast feeding mothers on advice of the paediatric dieticians.

#### Pre-Term Formulas

- Started by the neonatal unit only.
- Usually continued until 6 months corrected age but may be discontinued sooner with advice depending on growth trajectory.

#### When to refer to a paediatric specialist

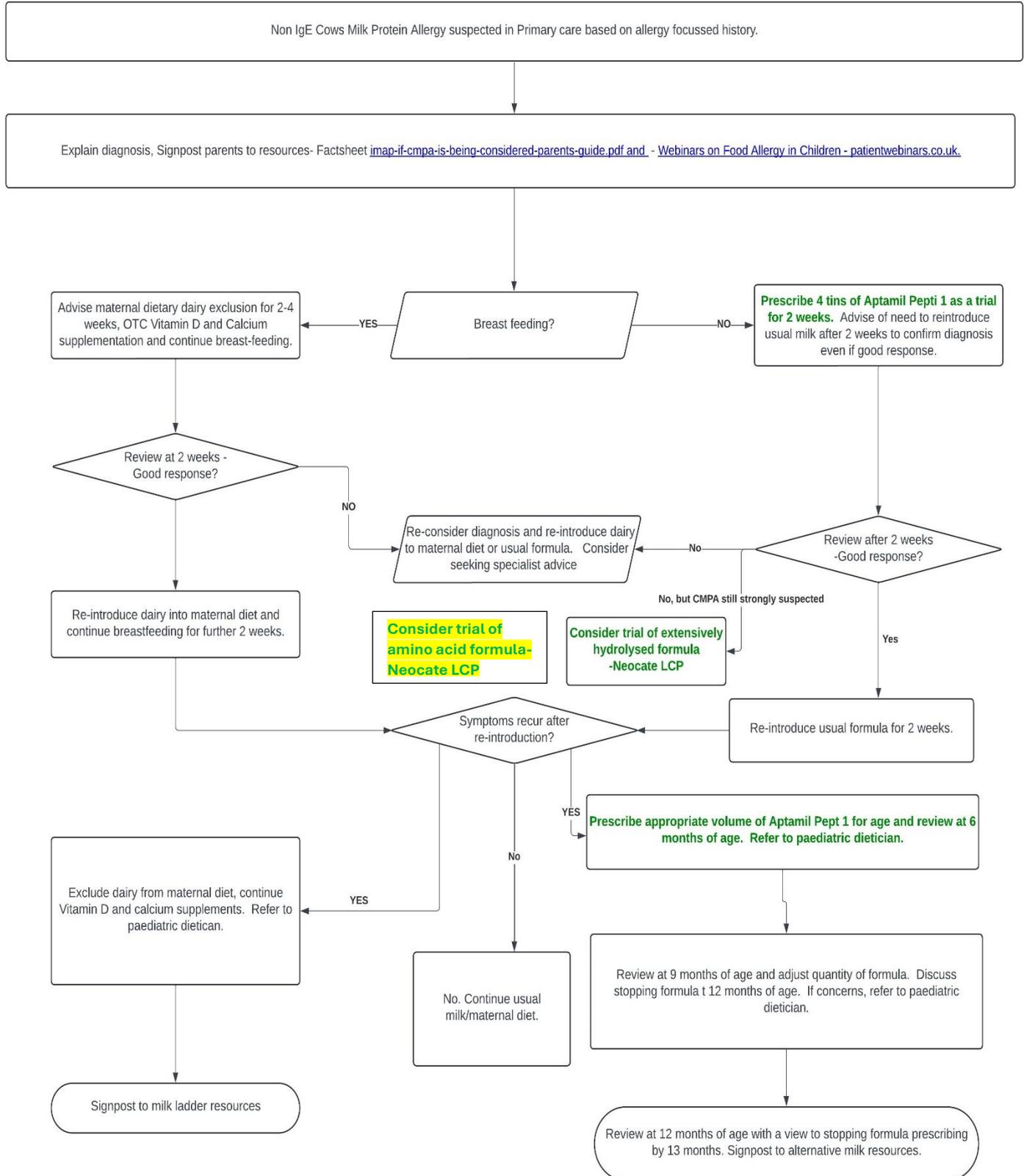
- There is evidence of severe IgE-mediated reactions or anaphylaxis – Refer to specialist and dietician.
- Diagnostic uncertainty - Symptoms persist despite dietary exclusion.
- Concerns about poor weight gain or failure to thrive -Joint referral to paediatrics and paediatric dietetics.

#### When to review the prescription

- Please review prescription if you can answer 'yes' to any of the following questions:
  - Is the child over 1 year of age? - Child can be weaned onto non-dairy milk e.g. Soya, Oat milk. Dietetics advise a gradual introduction so the prescription may need to be continued until **13 months**.
  - Has the formula been prescribed for more than 1 year? Consider if still needed, seek dietetic advice if parents finding it difficult to wean.
  - Does the volume prescribed appear excessive for their age? ([see table 2](#))



## Quick Guide Flowchart for diagnosing and managing suspected CMPA.





## Appendix 1: ACBS Approved Formula

<b>Infant nutrition</b>				
<b>Condition</b>	<b>Infant formula</b>	<b>Special characteristics</b>	<b>ACBS indications</b>	<b>NHS indicative price</b>
Cow's milk protein allergy: Extensively hydrolysed formula (EHF)	Aptamil Pepti® 1	fish oil, lactose	Established cows' milk allergy with/without proven secondary lactose intolerance	£10.98/400g
	Aptamil Pepti® 2	fish oil, lactose	Established cows' milk allergy	£10.98/400g
	Aptamil® Pepti Syneo	fish oil, lactose	Cow's milk protein allergy	£10.98/400g
	Arize	Contains residual lactose, soya oil. Gluten-free	Cow's milk protein allergy and other conditions where an extensively hydrolysed formula is indicated.	£15.25/400g
	Nutramigen 1 with LGG®	Contains soya oil. Lactose-free	Cow's milk allergy with / or without lactose intolerance	£12.92/400g
	Nutramigen 2 with LGG®	Contains soya oil. Lactose-free	Cow's milk allergy with / or without lactose intolerance	£12.92/400g
	SMA Althera®	Contains lactose. Gluten-free	Dietary management of cows' milk protein allergy and/or multiple food protein allergies.	£11.04/400g
Cow's milk protein allergy with impaired gastro-intestinal function or malabsorption: Extensively hydrolysed formula with MCT	Aptamil Pepti-Junior®	Contains fish oil, residual lactose	Disaccharide and/or whole protein intolerance, or where amino acids and peptides are indicated in conjunction with MCT	£19.45/450g
Cow's milk protein allergy with impaired gastro-intestinal function or malabsorption and faltering growth: Extensively hydrolysed formula, high energy	Infatrini® Peptisorb	Contains fish oil, residual lactose. Gluten-free	Disease-related malnutrition, intractable malabsorption, inflammatory bowel disease, short bowel syndrome, bowel fistulae, and intolerance to whole protein feeds.	£5.23/200ml bottle
Disorders of calcium metabolism: Low calcium infant formula	Locasol®	Contains lactose	Calcium intolerance.	£35.25/400g
Faltering growth: High energy infant formula-	Infatrini®	Contains fish oil, lactose, soya. Gluten-free. Not recommended for child over <b>18</b> months	Disease-related malnutrition, malabsorption, and growth failure.	£1.91/125ml £3.05/200ml
	SMA High Energy®	Contains fish oil, lactose. Not recommended for child over <b>18</b> months	Disease-related malnutrition, malabsorption, and growth failure in infancy.	£2.43/200ml
	Similac® High Energy Liquid (sip or tube feed) per 100 mL	Contains lactose, soya. Gluten-free.	Patients who have faltering growth, increased energy requirements and/or require a fluid restriction.	£3.49/200ml



		Not recommended for child over <b>18</b> months		
Lactose intolerance: Lactose-free formula	SMA LF® powder	Contains fish oil, residual lactose, soya. Not recommended for child over <b>18</b> months	Proven lactose intolerance.	£6.46/400g
Severe cow's milk protein allergy or multiple food allergies: Amino acid formula	EleCare®	Contains residual lactose, soya. Gluten-free	Cow's milk allergy, severe and/or multiple food allergies or other conditions where an amino acid-based formula is indicated.	£22.98/400g
	Neocate® LCP		Cow's milk allergy, multiple food protein allergies, and other conditions where an elemental diet is recommended.	£25.56/400g
	Neocate® Syneo	Not recommended for child over <b>12</b> months	Cow's milk allergy, multiple food protein allergies and other conditions requiring an amino acid-based diet.	£25.56/400g
	Nutramigen® PurAmino	Contains soya oil. Lactose-free	Severe cow's milk allergy and multiple food intolerance. Suitable for other indications requiring an elemental diet.	
	SMA Alfamino®	Gluten-free, lactose-free. Not recommended for child over <b>3</b> years	Dietary management of cows' milk allergy and/or multiple food allergies and other conditions where an amino acid formula is recommended.	£25.73/400g
Significant reflux: Pre-thickened formula	SMA® Anti-Reflux	Contains fish oil, lactose; Not recommended for child over <b>12</b> months	Significant reflux (regurgitation). Not to be used in conjunction with any other thickener or antacid products.	£9.43/800g
Cow's milk protein allergy: Extensively hydrolysed formula	Nutramigen 3 with LGG®	Contains soya oil. Lactose-free; Suitable from <b>12</b> months	Cow's milk protein allergy.	£12.92 / 400g
Cow's milk protein allergy with impaired gastro-intestinal function or malabsorption: Amino acid products	Neocate® Junior	Not suitable for use in child under <b>12</b> months	Proven whole protein allergy, short bowel syndrome, intractable malabsorption, and other gastrointestinal disorders where an amino acid diet is recommended.	£39.61 / 400g
	Neocate® Spoon	Not suitable for use in child <b>under 6</b> months	Cow's milk allergy, multiple food protein allergy and other conditions requiring an amino acid-based food.	£58.95/15 sachets
Infants born before 34 weeks gestation, weighing less than <b>2 kg</b> , and not breastfed	Nutriprem® 2 Liquid	Contains egg, fish oil, lactose, soya; Not suitable for use	Catch-up growth in pre-term infants (i.e. less than <b>35</b> weeks at birth) and small for gestational	£2.33/200ml



		in child <b>over 6</b> months corrected age	age infants, <b>until 6</b> months corrected age.	
	Nutriprem® 2 Powder	Contains egg, fish oil, lactose, soya; Not suitable for use in child over 6 months corrected age	Catch-up growth in pre-term infants (i.e. less than 35 weeks at birth) and small for gestational age infants, until 6 months corrected age.	£14.02/800g
	SMA Gold Prem® 2 liquid Liquid (sip feed) per 100 mL	Contains fish oil, lactose	Preterm and low birthweight infants.	£2.16/200ml
	SMA Gold Prem® 2 powder	Contains fish oil, lactose	Preterm and low birthweight infants.	£13.07/800g
Infants born before 34 weeks gestation, weighing less than <b>1.5 kg</b> , and breastfed	Nutriprem® Human Milk Fortifier	Contains egg, fish oil, residual lactose	Preterm and low birthweight infants.	£10.97 / 50 sachets
KEY: <b>GREEN</b> = suitable for initiation in primary care + routine follow with specialist paediatric dietitian; <b>AMBER</b> = initiation and review with specialist paediatric dietitian				

#### FURTHER RESOURCES FOR PARENTS

[Cow's Milk Allergy Journey | Allergy UK | National Charity](#)

[Cow's milk protein allergy - home milk challenge | Infant Feeding and Allergies - Safety Netting | Healthier Together](#)

Healthy start vouchers [How to apply – Get help to buy food and milk \(Healthy Start\)](#)

#### FURTHER RESOURCES FOR CLINICIANS

[PrescQipp information on infant feeds](#)