

Appropriate prescribing of specialist infant formula



Breastfeeding has health benefits for baby and mother and should be promoted and encouraged with appropriate support and advice where breastfeeding is possible. These guidelines are intended to assist healthcare professionals in the appropriate prescribing of specialist infant formula for babies with certain conditions already being formula fed or on mixed feeding. The intention is not to replace breastfeeding where this can be continued.

Cow's milk allergy

- Cow's milk allergy (CMA) is a reproducible immune mediated reaction to proteins in cow's milk.
- Confirmed CMA occurs in two to three percent of infants.
- CMA differs from lactose intolerance (see guidance on lactose intolerance on [page eight](#))

Breastfeeding is recommended for infants with CMA where it is possible and it should continue to be promoted, encouraged and supported, advising the mother to eliminate cow's milk from her own diet (see treatment below).

Identification and management

Step 1: Identification

Take an allergy focused clinical history (see [NICE clinical knowledge summary scenario](#) or [Allergy UK focused history](#)) tailored to presenting symptoms and the age of the child. For more detail, see [NICE CG116](#) and [iMAP guidelines](#).

Delayed onset of symptoms:

- Mostly two to 72 hours after ingestion of cow's milk protein.
- Infant is formula fed, exclusively breast fed or at onset of mixed feeding.

Acute onset of symptoms:

- Mostly within minutes, may be up to two hours, after ingestion of cow's milk protein.
- Infant is formula fed or at onset of mixed feeding (rare in exclusively breast fed infants).

Usually several symptoms will be present	One or more severe/persisting symptoms will be present	One or more symptoms will be present	Anaphylaxis
Gastrointestinal			Immediate reaction with severe respiratory and/or CVS signs and symptoms. Severe gastrointestinal reaction (rare).
<ul style="list-style-type: none"> • Colic • Vomiting/reflux/GORD • Food refusal or aversion • Loose or more frequent stools • Constipation • Abdominal discomfort or painful flatus • Blood and/or mucus in stools in an otherwise well infant 	<ul style="list-style-type: none"> • Diarrhoea • Vomiting • Abdominal pain • Food refusal or aversion • Significant blood and/or mucus in stools • Irregular or uncomfortable stools • +/- faltering growth 	<ul style="list-style-type: none"> • Diarrhoea • Vomiting • Abdominal pain/colic 	
Skin			Emergency treatment and admission.
<ul style="list-style-type: none"> • Pruritus • Erythema • Non-specific rashes • Moderate persistent atopic dermatitis 	<ul style="list-style-type: none"> • Severe atopic dermatitis • +/- faltering growth 	<ul style="list-style-type: none"> • Acute pruritus • Erythema • Urticaria • Angioedema • Acute 'flaring of atopic dermatitis 	
Mild to moderate non-IgE mediated CMA (go to step 1b)	Severe non-IgE mediated CMA	Mild to moderate IgE mediated CMA	Severe IgE mediated CMA

Step 1b: Confirming diagnosis for mild to moderate non-IgE mediated CMA only

See iMAP guidance on management of mild to moderate non-IgE CMA.

- Exclude cow's milk for two to four weeks.
- Advise maternal cow's milk free diet if breast fed or mixed feeding.
- Advise first-line extensively hydrolysed formula (EHF) if formula fed or mixed feeding.
- If clear improvement in symptoms, confirm diagnosis with home milk challenge.
- If symptoms return, recommence cow's milk exclusion and if clear improvement in symptoms, diagnosis of CMA confirmed.

Step 2: Treatment and onward referral

	Mild to moderate non-IgE mediated CMA (step 1b)	Severe non-IgE mediated CMA	Mild to moderate IgE mediated CMA	Severe IgE mediated CMA
Treatment if breast fed	Advise mother to exclude cow's milk from her own diet and include daily supplementation with calcium and vitamin D. Refer to paediatric dietitian if advice is required pre-weaning.			
Treatment if formula fed/mixed-fed	Prescribe first-line extensively hydrolysed formula (EHF) - see below.			Prescribe amino acid formula (AAF) - see below.
	Milk-free weaning/dietary advice will be required.			
Refer to:	Please aim to establish if IgE or non-IgE-mediated prior to referral			
	Paediatric dietitian	Paediatric dietitian and Paediatrician	Secondary care nurse-led or consultant-led allergy clinic. Allergy clinic to refer to paediatric dietitian.	Secondary care consultant-led allergy clinic. Allergy clinic to refer to paediatric dietitian.

How much powdered infant formula to prescribe monthly

Only prescribe one or two tins initially until compliance and tolerance established.

Age of child	Number of tins
Up to six months: Infants that are exclusively formula fed	Up to 13 x 400g tins
Six to 12 months: Infants requiring less formula as solid food intake increases	6 to 12 x 400g tins

From 12 to 18 months old onwards infants should be able to transition to shop-bought cow's milk alternative, ensuring nutritional requirements are met. Please follow advice of paediatric dietitian.

When to stop formula (EHF or AAF prescription)

- When child has successfully transitioned on to shop-bought cow's milk alternative under guidance of paediatric dietitian.
- If child has grown out of the allergy i.e. able to consume cow's milk without symptoms.
- If advised to stop prescription by paediatric dietitian, paediatrician or allergy clinic.
- If child still has prescription at age two years, stop unless requested to continue by paediatric dietitian, paediatrician or allergy clinic.

Infant formula formulary recommendations

These recommendations are intended to be used at the point of initiating formula. Switching is not recommended for those already established on a formula, unless first discussed with the parents/carers and tolerance reviewed.

Product	Age-range	Price	Tin size
Extensively hydrolysed formula (EHF)			
FIRST LINE			
Lactose free			
Similac Alimentum ¹	From birth	£9.10	400g
OR Nutramigen 1 with LGG	From birth to six months	£11.21	400g
OR Nutramigen 2 with LGG	From six months onwards	£11.21	400g
SECOND LINE			
Containing lactose: If the infant is not tolerating the first line product because of taste.			
Aptamil Pepti 1 ²	From birth to six months	£9.87	400g
OR Aptamil Pepti 2 ²	From six months onwards	£9.41	400g
OR SMA Althera	From birth	£10.68	450g
Amino acid formula (AAF)			
Evidence of severe IgE (anaphylactic) allergy or if EHF does not resolve symptoms. Approx 10% of infants with CMA will require an AAF. 90% should tolerate an EHF.			
SMA Alfamino ²	From birth	£22.98	400g
OR Nutramigen Puramino	From birth	£23.00	400g
OR Neocate LCP	From birth	£29.56	400g

¹ = First line

² = Second line

³ = Specialist recommendation only

⁴ = Not routinely prescribed

Infant formula formulary specialist recommendations / not routinely prescribed

These recommendations are intended to be used at the point of initiating formula. Switching is not recommended for those already established on a formula, unless first discussed with the parents/carers and tolerance reviewed.

Product	Age-range	Price	Tin size
SPECIALIST RECOMMENDATION ONLY			
Extensively hydrolysed formula (EHF)			
For over 12 months of age: On recommendation of specialist (paediatrician, allergy clinic or paediatric dietitian) only.			
Nutramigen 3 with LGG ³	Over 12 months of age	£11.21	400g
EHF with medium chain triglycerides (MCT) - for CMA and malabsorption			
On recommendation of specialist (paediatrician, allergy clinic or paediatric dietitian) only.			
Aptamil Pepti-Junior ³	From birth	£13.36	450g
Pregestimil Lipil ³	From birth	£12.43	400g
EHF with medium chain triglycerides (MCT) and energy dense - for CMA, malabsorption and faltering growth			
On recommendation of specialist (paediatrician, allergy clinic or paediatric dietitian) only.			
Infatrini Peptisorb ³	From birth	£3.67	200ml bottle
Amino acid formula (AAF)			
For over 12 months of age: On recommendation of specialist (paediatrician, allergy clinic or paediatric dietitian) only.			
Neocate Junior ³	Over 12 months of age	£28.70	400g
Neocate Syneo ³	Over 12 months of age	£29.56	400g
Soya formula			
Do not prescribe ⁴ . If wishes to trial advise to purchase over the counter (OTC). Some children with cow's milk allergy may react to soya. Over six months old only.			
SMA WYSOY ⁴	Over six months only	OTC (retail approx £13)	860g

¹ = First line

² = Second line

³ = Specialist recommendation only

⁴ = Not routinely prescribed

Do's and don'ts

Do	Don't
<ul style="list-style-type: none"> Promote, encourage and support breastfeeding if clinically safe and mother is in agreement. 	<ul style="list-style-type: none"> Do not prescribe lactose free formulas (Aptamil LF, SMA LF, Enfamil-O-Lac) for infants with cow's milk allergy (CMA).
<ul style="list-style-type: none"> Advise about a maternal milk free diet (and refer to dietitian) for breastfeeding mothers of infants with cow's milk allergy (CMA) 	<ul style="list-style-type: none"> Do not recommend soya formula (SMA Wysoy) for those under six months old with CMA or secondary lactose intolerance, due to high phyto-oestrogen content. Note: some children with CMA may also react to soya.
<ul style="list-style-type: none"> Check the type and amount of formula prescribed is appropriate for the age of the infant. 	<ul style="list-style-type: none"> Do not suggest milk or formula made from goat, sheep or other mammalian milks for those with CMA or secondary lactose intolerance.
<ul style="list-style-type: none"> Review any prescription for formula for CMA and seek guidance from a paediatric dietitian if appropriate where: <ul style="list-style-type: none"> The child is over two years old. The formula has been prescribed for over one year. Greater amounts of formula are being prescribed than would be expected. The child can consume cow's milk or cow's milk containing foods. 	<ul style="list-style-type: none"> Do not recommend rice milk for those under five years due to high arsenic content.
<ul style="list-style-type: none"> Remind parents/carers to follow the advice given by the formula manufacturer regarding safe storage of the feed once mixed or opened. 	
<ul style="list-style-type: none"> Refer to paediatric dietitians and/or secondary or specialist care - see referral pathway. 	

Seek prescribing advice if needed in primary care from NHS Kernow's Medicines Optimisation team.
Email kccg.prescribing@nhs.net.

Other specialist infant formula

Product	Age range	Price	Presentation	Notes
Formula for pre-term or low birth-weight infants				
<ul style="list-style-type: none"> Pre-term formula will be commenced in hospital. Infants on these formulas should have their growth (this includes weight, length and head circumference) monitored by the health visitor or other suitable healthcare professional. These products should be discontinued by six months corrected age. 				
Specialist pre-term formula				
Nutriprem 2 Powder ³	Post-discharge for pre-term infants. Review at six months corrected age.	£10.37	800g tin	Follow hospital discharge instruction. Ensure review at six months corrected age.
SMA Pro Gold Prem 2 ³		£4.92	400g tin	
Nutriprem 2 liquid		£1.74	200ml bottle	Only for exceptional circumstances as expensive ready-to-use convenience product.
SMA Pro Gold Prem 2 liquid		£1.64	200ml bottle	
Faltering growth				
<ul style="list-style-type: none"> All infants with faltering growth should be referred to secondary care without delay. See NICE guideline NG75. 				
High energy infant formula				
SMA Pro High Energy ³	From birth	£1.97	200ml cartons	
Infatrini ³	From birth	£1.51	125ml bottle	
		£2.40	200ml bottle	
Similac High Energy ³	From birth	£2.38	200ml bottle	

¹ = First line

² = Second line

³ = Specialist recommendation only

⁴ = Not routinely prescribed

Conditions for infant formulas to be bought over the counter

Product	Over the counter price (retail prices may vary)	Presentation	Notes
Lactose intolerance			
Lactose-free formula do not prescribe - For purchase over the counter			
Lactose intolerance is often confused with cow's milk allergy but lactose intolerance is not an allergy.			
<ul style="list-style-type: none"> • Congenital lactose intolerance is extremely rare and presents from birth. • Primary lactose intolerance usually presents in older children and adults. It is more common in people of Asian or African-Caribbean descent. • The most common form of lactose intolerance in the UK is secondary intolerance, which can occur following gastroenteritis. This is temporary and usually resolves without the needs for lactose-free milk. • If a lactose-free formula is required, recommend over the counter lactose-free formula (similar price to standard formula). Lactose-free formulas should not be prescribed. 			
Do not recommend lactose-free formula for longer than eight weeks without review. Symptoms usually resolve within this time. For children over 12 months, lactose-free supermarket milk products are available.			
Enfamil O-Lac	£7.35	400g tin	Suitable from birth. Available in pharmacies only.
SMA LF	£6.00	430g tin	Suitable from birth. Available in pharmacies and supermarkets.
Aptamil LF	£6.00	400g tin	
Gastro-oesophageal reflux disease (GORD)			
<ul style="list-style-type: none"> • See RMS guidelines on GORD in children: management. • See NICE guideline NG1. 			
Pre-thickened and thickening formula			
<ul style="list-style-type: none"> • All suitable from birth. • Formula that can thicken in the stomach should not be used in conjunction with separate thickeners (eg Gaviscon or Carobel) or in conjunction with medication such as antacids, rantidine or proton pump inhibitors since the formula need stomach acids to thicken and reduce reflux. • Pre-thickened formula should not be used in conjunction with other thickening agents (eg Gaviscon or Carobel) to avoid over thickening of the stomach contents. 			
OTC thickening formula - do not prescribe. For purchase over the counter			
Enfamil AR	£6.00	400g tin	Contains rice starch. Available in pharmacies only.
SMA pro-anti reflux	£10.00	800g tin	Contains potato starch.
OTC pre-thickened formula - do not prescribe. For purchase over the counter			
Cow & Gate anti-reflux	£11.50	900g tin	Contains carob gum
Aptamil anti-reflux	£13.00	900g tin	
HIPP organic anti-reflux	£11.00	800g tin	