

Key points - Specialist Infant formulae prescribing guidelines

1 st line	2 nd line	Secondary/tertiary care recommendation only	Self-purchase
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GPs may only initiate ♦ whilst awaiting a secondary care referral.

Do not prescribe	Proprietary products (list not exhaustive)	
Lactose free formula/milk	SMA LF, Aptamil Lactose free, Enfamil O-Lac	
Soya milk	SMA Wysoy, Infasoy	
Anti-reflux/pre-thickened	Aptamil Anti-reflux, Enfamil AR, Cow & Gate Anti-reflux, SMA Staydown	
Hungry milks	Aptamil Hungry milk, Cow & Gate for hungrier babies, SMA Extra hungry milk	
Comfort milks	Aptamil Comfort, SMA Comfort, Cow & Gate Comfort	
Hypoallergenic	SMA HA (hypoallergenic)	
Others	Rice milk, Goats milk, Sheep milk	
For Cow's milk protein allergy (CMPA) – support prescribing up to 18 months	Size of tin	Initial quantity to prescribe
♦ Nutramigen 1 with LGG (under 6 months) <i>Formerly Nutramigen Lipil 1</i>	400g	Initially 2 tins of 400g/450g OR 1 tin of 800g/900g Continuation see page 3
♦ Nutramigen 2 with LGG (over 6 months) <i>Formerly Nutramigen Lipil 2</i>	400g	
Aptamil Pepti 1 (under 6 months)	400g or 800g	
Aptamil Pepti 2 (over 6 months)	400g or 800g	
For Cow's milk protein allergy (CMPA) - support prescribing up to 18 months	Size of tin	Typical monthly usage
♦ Nutramigen Puramino <i>Formerly Nutramigen AA</i>	400g	Initially 2 tins Continuation see page 3
♦ Neocate LCP Alfamino	400g	
Neocate Advance (12-18 months)	10 x 100g unflavoured sachets or 15 x 50g flavoured banana/vanilla	According to individual need once an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.
Neocate Active (12-18 months)	15 x 63g unflavoured/blackcurrant	Initially 30 sachets Continuation: 30-60 sachets
Faltering growth - support prescribing up to 18 months or 8kg	Size of bottle	Typical monthly usage
♦ Similac High Energy	200ml	Prescribe an equivalent volume of high energy formula to the child's usual intake of regular formula until an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.
♦ SMA High Energy	250ml	
Infatrini	200ml or 500ml	
Infatrini Peptisorb	200ml or 500ml	
Premature "at risk" infants	Typical monthly usage	
SMA Gold Prem 1	Supplied by Secondary Care. Do not prescribe	
C&G Nutriprem 1	Supplied by Secondary Care. Do not prescribe	
Premature "at risk" infants - support prescribing up to 6 months	Size of tin	Typical monthly usage
SMA Gold Prem 2	400g tin	Age 0-6mths (corrected age) 9-11 tins
C&G Nutriprem 2	900g tin	Age 0-6mths (corrected age) 4-5 tins

Specialist Infant formulae prescribing guidelines

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Guidance for appropriate prescribing

Breast milk is the optimal milk for all infants. This should be promoted and encouraged where it is clinically safe to do so and the mother is in agreement. However, in some cases a specialist infant formula is required and these guidelines have been developed to advise on the most appropriate formula to prescribe within North East Essex.

All infants requiring a specialist infant formula should be referred to the Paediatric Dietitian for specialist advice and review.

These guidelines are appropriate for infants from birth. Specialist infant formula milks may be required to be **prescribed up until the age of 18 months**. Infants requiring such prescriptions will be under regular dietetic review.

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Cow's milk protein intolerance / allergy

Where there is a clear and definite reaction to milk, some specialist infant formula milks may be initiated whilst awaiting a secondary care referral. Any improvement should be seen within 1-2 weeks. Refer to appendix 1 for an algorithm on the management of Cow's Milk Protein Allergy (CMPA) management algorithm.

Guidance for appropriate quantity to prescribe

In all situations, when a prescription for infant formula milk is initiated a maximum of 2 tins of 400g/450g or 1 tin of 800g/900g should be prescribed to ensure the infant tolerates the formula. Thereafter the following table should be used as a guide for how much to prescribe unless otherwise advised by the Paediatric dietitian.

	Typical usage for fully formula fed infants	
	Birth – 12 months	12 – 18 months
Initiation	2 tins of 400g/450g OR 1 tin of 800g/900g	2 tins of 400g/450g OR 1 tin of 800g/900g
Continuation (monthly)	10-12 x 400g/450g tins OR 4 – 5 x 800g/900g tins	7 x 400g/450g tins OR 3 x 800g/900g tins

Extensively hydrolysed formulae

Typically used for those with Cow's Milk Protein Allergy (CMPA). GPs may only initiate ♦ whilst awaiting a secondary care referral.

Name of formula	Size of tin
♦ Nutramigen 1 with LGG (under 6 months) <i>Formerly Nutramigen Lipil 1</i>	400g
♦ Nutramigen 2 with LGG (over 6 months) <i>Formerly Nutramigen Lipil 2</i>	400g
Aptamil Pepti 1 * (under 6 months)	400g or 800g
Aptamil Pepti 2 * (over 6 months)	400g or 800g

* Aptamil Pepti contains lactose so will not be tolerated by all infants with CMPA. Some infants may have a degree of lactose intolerance particularly if gut symptoms are present. Infants may accept this when Nutramigen with LGG has been refused. However, if infants have suffered a reaction to Nutramigen with LGG, Aptamil Pepti is also unlikely to be suitable.

Amino acid formulae

For those with cow's milk protein intolerance / allergy who have not responded to extensively hydrolysed formula. GPs may only initiate (♦) if hydrolysed formula was not tolerated after a reasonable trial and if they have made a formal referral to a Paediatrician, and it is not clinically appropriate to wait for a specialist recommendation.

Name of formula	Size of tin	Typical monthly usage
♦ Nutramigen Puramino <i>Formerly Nutramigen AA</i>	400g	Initially 2 tins and then according to the table above.
♦ Neocate LCP	400g	
Alfamino	400g	
Neocate Advance (12-18 months)	10 x 100g unflavoured sachets or 15 x 50g flavoured banana/vanilla	According to individual need once an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.
Neocate Active (12-18 months)	15 x 63g unflavoured/blackcurrant	Initially 30 sachets Continuation: 30-60 sachets

Faltering growth

High energy formulae

For those requiring energy dense formula due to specific requirements. Prescribing is only supported from birth up to 18 months or 8kg when under the care of a Paediatric dietitian.

Name of formula	Size of bottle	Typical monthly usage
◆ Similac High Energy	200ml	Prescribe an equivalent volume of high energy formula to the child's usual intake of regular formula until an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.
◆ SMA High Energy	250ml	
Infatrini	200ml or 500ml	
Infatrini Peptisorb	200ml or 500ml	

▪ Infatrini Peptisorb is recommended for those requiring a peptide based feed and additional calories.

Do not prescribe formulae

In addition to standard infant formula the following should **NOT** be prescribed but self-purchased.

- Lactose free
- Hungry milk
- Soya
- Rice milk
- Anti-reflux/thickening
- Goats or sheep milk
- Comfort milk

These are typically a similar price to standard infant milk, readily available and include:

DO NOT PRESCRIBE
Aptamil Hungry milk
Cow & Gate for hungrier babies
SMA Extra hungry milk
Aptamil Comfort
SMA Comfort
Cow & Gate Comfort
SMA LF (lactose free)
Aptamil Lactose free
Enfamil O-Lac (lactose free)
Aptamil Anti-reflux
Enfamil AR (anti-reflux)
Cow & Gate Anti-reflux
SMA Staydown
SMA HA (hypoallergenic)
SMA Wysoy

Healthy start vouchers.

These may be available to low income families. To check if families qualify for healthy start vouchers direct them to: <http://www.healthystart.nhs.uk/>

Vouchers can be spent on infant formula milk that is based on cow's milk and says on the packaging it can be used from birth. This includes lactose-free milks that are derived from cow's milk. They cannot be used on any follow-on formulas that say on the packaging for babies aged six months or older.

DO NOT RECOMMEND

Goat & sheep milk

Milk/formula based on goat's milk or sheep milk contain lactose and similar proteins to cow's milk. These should not be given to infants with CMPA or lactose intolerance.

Soya milk

This was originally developed for babies who cannot have infant formula milk based on cow's milk i.e. due to milk allergy. Other types of formula that is more suitable are now available. Soya based formula should not be given at all to any infant under 6 months due to the phyto-oestrogen content.

Preterm infants and Term babies of low birth weight

Nutrient Enriched Post Discharge Formulae

a) Nutriprem 1, SMA Gold Prem 1

Name of formula	Typical monthly usage
SMA Gold Prem 1	Supplied by Secondary Care
C&G Nutriprem 1	Supplied by Secondary Care

There is a general shift to get preterm infants home sooner so they can be with their families and this results in some infants being discharged before they have fully developed their feeding skills. They are often not feeding ad libitum and may in fact still be receiving nasogastric feeds.

High risk babies from the Neonatal Unit are categorised according to gestation. Babies born at less than 30 weeks gestation are most at risk of early critical illness and subsequent co-morbidities making them vulnerable to nutritional deficit and higher energy requirements for maintenance and growth. Babies born with birth weights less than the 10th centile are similarly disadvantaged at all gestations but particularly if less than 34 weeks as most transfer of maternal nutrition and energy stores occurs in the last trimester of pregnancy. They are thus born with an energy and mineral deficit.

In infants who are not fed on breast milk, or where supplementation of breast milk is required, nutrient enriched formula e.g. Nutriprem 1 or SMA Gold Prem 1 will be initiated whilst the infant is in hospital. This will be **supplied by the hospital** until the infant reaches 2kg but in some cases may be up to 2.5kg.

Infants who are ready for discharge but remain:

- below 2kg
- below the 9th centile and <2.5kg
- infants who have had an eventful neonatal period

will be sent home with Nutriprem 1 or SMA Gold Prem 1 which **will be supplied by the hospital**.

These infants will be in regular contact with the Neonatal Outreach Nurse, Neonatal Dietitian and Paediatricians. Health Visitors are also closely involved with these infants.

b) Nutriprem 2, SMA Gold Prem 2

Name of formula	Size of tin	Typical monthly usage
SMA Gold Prem 2	400g tin	Age 0-6mths 9-11 tins
C&G Nutriprem 2	900g tin	Age 0-6mths 4-5 tins

Liquid versions of these feeds are a convenience product and should be purchased.

A Cochrane review has found no substantiation for the use of nutrient enriched formula, such as Nutriprem 2 (75kcal/100ml) or SMA Gold Prem 2 (73kcal/100ml) over standard “term” proprietary brand ‘first stage’ infant formulae in most infants. Therefore Nutriprem 2 and SMA Gold Prem 2 should only be prescribed on the NHS for “**at risk**” preterm infants **who remain growth restricted at discharge**. These are infants who were premature and born < 34 weeks gestation with a birth weight <2.0Kg **and** remain growth restricted at discharge, defined as those who have not demonstrated sufficient catch up growth (still < 10th centile or > 2 centiles below birth centile) **and** with additional co-morbidities making them “at risk”. Examples include:

Infants who have / had risk factors that impact on their nutritional status e.g.

- abnormal antenatal Dopplers
- sepsis
- received parenteral nutrition
- necrotising enterocolitis (NEC)
- prolonged time to establish enteral feeding

Comorbidities that increase an infant’s nutritional requirements or impact on their ability to feed e.g.

- chronic lung disease
- cardiac disease
- neurological impairment
- GORD
- congenital gut malformations

Nutriprem 2 or SMA Gold Prem 2 will be hospital initiation only. When GPs are asked to prescribe there will be clear reasons why. These infants will continue to be monitored in outpatients by the Neonatal Dietitian and Paediatrician until growth is appropriate. Infants will usually be on Nutriprem 2 or SMA Gold Prem 2 until three months corrected age. Exceptionally some infants may need it until six months corrected age and this will be determined by the Paediatrician or Paediatric Dietitian. The decision to switch to a standard “term” formula will be made by the Paediatrician or Paediatric Dietitian and this will then need to be self-purchased. Once infants have reached optimal growth there is no advantage to using nutrient enriched formulas. **Prolonged use may have a detrimental effect on their long term health.**

For infants who were born at “term,” nutrient enriched formula (Nutriprem 2 or SMA Gold Prem 2) will only be initiated by the Neonatal Unit for infants born at low birth weight <2.5kg. These infants have a weight below the 9th centile. Once their weight has increased then these infants are likely to be changed to a high energy formula if their growth is still faltering or a standard “term” formula.

Parents will be fully informed about the use of nutrient enriched formula on leaving the neonatal unit so that they have realistic expectations of the duration of use. All prescribing of nutrient enriched formulae will stop when infants reach 6 months corrected age.

References

- Appropriate prescribing of specialist infant formulae. Prescripp. Bulletin 67. July 2014.
- Cochrane systematic review and meta-analysis “Nutrient-enriched formula versus standard term formula for preterm infants following hospital discharge”. Young L, Morgan J, McCormick FM, McGuire W (2012 update). <http://apps.who.int/rhl/reviews/CD004696.pdf>
- Department of Health. Healthy Start scheme. <http://www.healthystart.nhs.uk/>
- Food Allergy in Children and Young People. National Institute of Health and Clinical Excellence CG116. February 2011. <https://www.nice.org.uk/guidance/cg116>
- MIMs database.
- The Map Guideline. Milk Allergy in Primary care. <http://cowsmilkallergyguidelines.co.uk/>

Acknowledgements

NHS Mid Essex CCG. Policy statement on prescribing of infant milks (and including formulary milks).
NHS Midlands and Lancashire CSU. Prescribing Guidelines for Specialist Infant Formula Feeds.

Appendix 1

Cow's Milk Protein Allergy (CMPA) management algorithm

The MAP Guideline (Milk Allergy in Primary Care) is an evidence-based management guideline specifically for cow's milk allergy (CMA). It focuses on the diagnosis and primary care aspects of management. The MAP algorithm is provided below, but more information and an interactive version of the algorithm can be accessed at <http://cowsmilkallergyguidelines.co.uk>

This algorithm should be used in conjunction with the North East Essex guidelines on "Specialist Infant formulae prescribing guidelines".

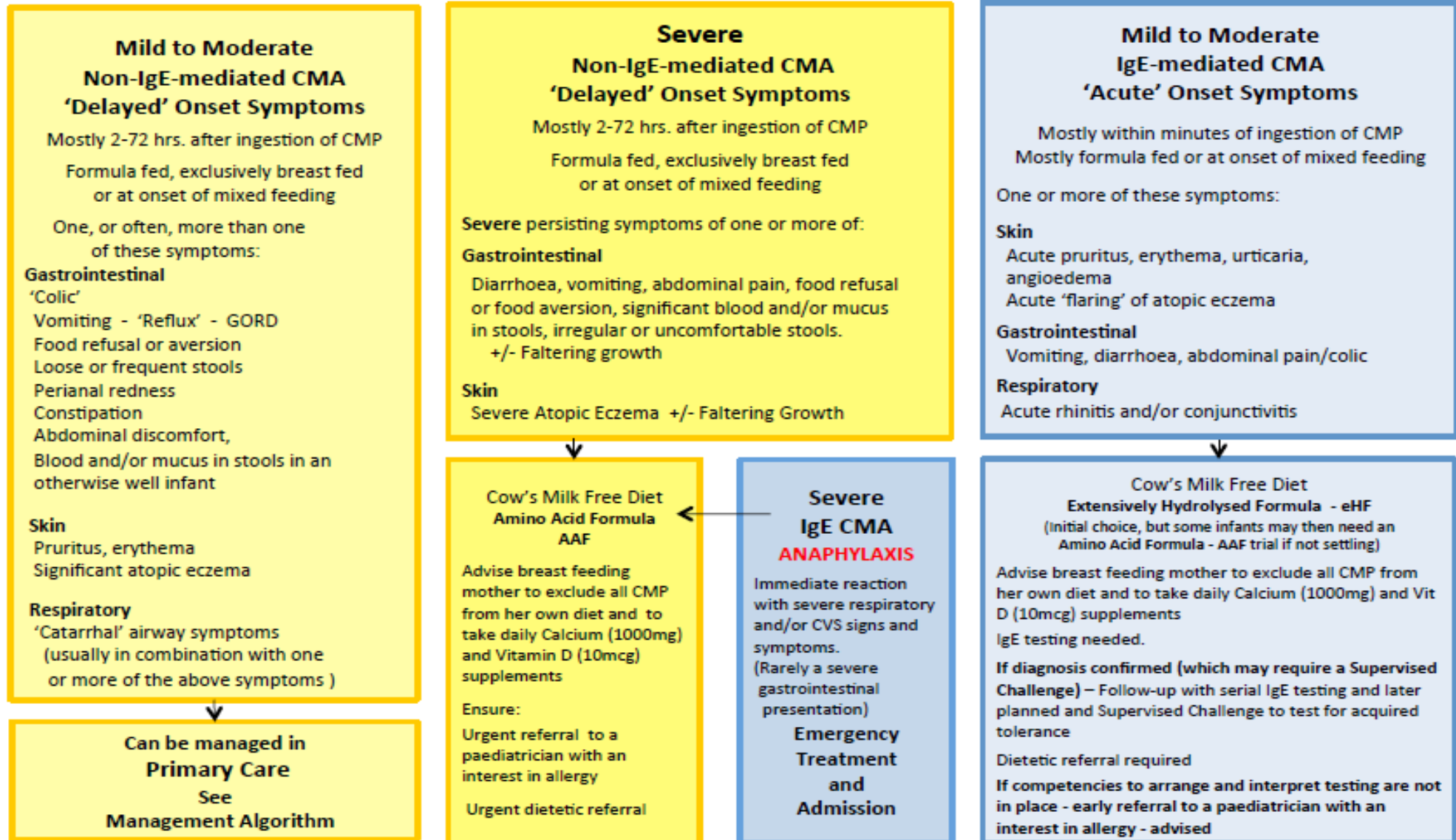
Infants should be referred to the Paediatric Dietitian after an initial consultation with a GP regarding a change in feed, so that patients can be seen at the Secondary centre in a timely matter.

Referral can be made via the referral template on System 1 or by writing a letter directly to the Paediatric Dietitians at Colchester General Hospital.

For cow's milk free maternal diets and milk free weaning advice that is required before referring to the Dietitian, direct parents to www.allergyuk.org
Where breast feeding mothers are excluding cow's milk from their own diet, they should be advised to take daily Calcium (1000mg) and Vitamin D (10mcg) supplements which are to be self-purchased as these are widely available to buy.

**Suspected Cow's Milk Allergy (CMA) in the 1st Year of Life
- having taken an Allergy-focused Clinical History**

TB/AF/
NS/CV/IJW
Oct 2013



Primary Care Management of Mild to Moderate Non-IgE CMA

(No initial IgE Skin Prick Tests or Serum Specific IgE Assays necessary)

