Ashford and St. Peter's Hospitals NHS
NHS Foundation Trust

NHS
North West Surrey
Clinical Commissioning Group

Prescribing Advice for Specialist Infant Formulae for Primary Care

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INTRODUCTION

Whilst these guidelines advise on appropriate prescribing of specialist infant formulae, breast milk remains the optimal milk for infants. This should be promoted and encouraged where it is clinically safe to do so and the mother is in agreement.

PURPOSE OF THE GUIDELINES

These guidelines aim to assist GPs and Health Visitors with information on the use of prescribable infant formulae. The guidelines are targeted at infants 0-12 months. However, some of the prescribable items mentioned here can be used past this age and advice on this is included.
The guidelines advise on:

- Over-the-counter (OTC) products available, where appropriate
- Initiating prescribing
- Quantities to prescribe
- Which products to prescribe for different clinical conditions
- Triggers for reviewing and discontinuing prescriptions
- When onward referral for dietetic advice and/or secondary/specialist care should be considered

QUANTITIES OF FORMULAE TO PRESCRIBE

When any infant formula is prescribed the guide below should be used:

For powdered formula:

Age	Tins per month		
Under 6 months	12 x 400g tins	or	6 x 800g tins
6-12 months	8 -13 x 400g tins	or	4 - 6 x 800g tins
Over 12 months	3- 4 x 400g tins	or	2- 3 x 800g tins

These amounts are based on:

- Infants under 6 months being exclusively formula fed and drinking 150ml/kg/day of a normal concentration formula
- Infants 6-12 months requiring less formula as solid food intake increases
- Children over 12 months drinking the 350mls of milk or milk substitute per day recommended by the Department of Health

For liquid high energy formula:

Prescribe an equivalent volume of formula to the child's usual intake until an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian

Do's and Don'ts of Prescribing Specialist Infant Formulae

DO

Promote and encourage breast-feeding where it is clinically safe and the mother is in agreement.

- Check any formula prescribed is appropriate for the age of the infant.
- Check the amount of formula prescribed is appropriate for the age of the infant (see page 2) and/or refer to the most recent correspondence from the paediatric dietitian.
- Review any prescription where the child is over 2 years old, the formula has been prescribed for more than 1 year, or greater amounts of formula are being prescribed than would be expected.
- Review the prescription if the patient is prescribed a formula for cow's milk protein allergy (CMPA) but able to eat any of the following foods – cow's milk, cheese, yogurt, ice cream, custard, chocolate, cakes, cream, butter, margarine, ghee.
- Prescribe only 1 or 2 tins/bottles initially until compliance/tolerance is established.
- Remind parents to follow the advice given by the formula manufacturer regarding safe storage of the feed once mixed or opened.
- Refer where appropriate to secondary or specialist care - see advice for each condition.
- Refer where appropriate to the paediatric dietitians.
- Seek **prescribing advice if needed in primary care from the Medicines Management Team.**
- Seek **prescribing advice if needed in secondary care from the local Hospital Medicines Information Centre.**

DON'T

- Add infant formulae to the repeat prescribing template in primary care, unless a review process is established to ensure the correct product and quantity is prescribed for the age of the infant.
- Prescribe lactose free formulae (**SMA LF®, Enfamil O-Lac®**) for infants with CMPA.
- Routinely prescribe soya formula (**SMA Wysoy®**) for those with CMPA or secondary lactose intolerance. It should not be prescribed at all in those under 6 months due to high phyto-oestrogen content. Soya protein formula, if tolerated, is an option beyond 6 months of age. Patients should be re-evaluated every 6 -12 months to assess whether they have developed tolerance to CMP. This is achieved in >75% by 3yrs of age and >90% by the age of 6yrs
- Suggest goat's milk and formulae made from it, sheep's milk for those with CMPA or secondary lactose intolerance.
- Suggest rice milk for those under 5 years due to high arsenic content.
- Prescribe **Nutriprem 2 Liquid®** or **SMA Gold Prem 2 Liquid®** unless there is a clinical need.
- Prescribe thickening formulae (**Enfamil AR®**) with separate thickeners or in conjunction with medication such as antacids, ranitidine, or proton pump inhibitors, since the formulae need stomach acids to thicken and reduce reflux.
- Suggest **Infant Gaviscon®** more than 6 times in 24 hours or where the infant has diarrhoea or a fever, due to its sodium content.
- Prescribe lactose free formulae in children with secondary lactose intolerance over 1 year who previously tolerated cow's milk, since they can obtain lactose free products (e.g.**Lactofree®**) from supermarkets.

Cow's Milk Protein Allergy (CMPA)

(Both IgE and Non-IgE mediated)

SYMPTOMS AND DIAGNOSIS

- Refer to NICE guideline CG116 'Food Allergy in under 19's: Assessment and Diagnosis ' Feb 2011 for full details https://www.nice.org.uk/guidance/CG116

- Useful CMPA diagnosis and management flowcharts in recent article 'Diagnosis and management of non-IgE mediated cow's milk allergy in infancy – a UK primary care practical guide' Venter et al. **Clinical and Translational Allergy 2013, 3:23** http://www.ctajournal.com/content/3/1/232 (MAP guidelines)

- Symptoms differ if the allergy is IgE-mediated or non-IgE mediated and can include[3,4]:
  - Skin symptoms (pruritis, erythema, urticaria, atopic dermatitis, eczema)
  - Acute angioedema of the lips and face, tongue and palate, and around the eyes.
  - GI symptoms (diarrhoea, bloody stools, nausea and vomiting, abdominal distension and /or colicky pain, constipation, GORD).
  - Recurrent wheeze or cough, nasal itching, sneezing, rhinorrhoea or congestion.
  - Anaphylaxis.
  - Faltering growth.

- NICE recommends further investigation with a skin prick test or specific IgE antibody blood test if IgE-mediated allergy is suspected[1].

- When non-IgE mediated allergy is likely, trial elimination for 2 to 6 weeks of the suspected allergen is advised[1].

ONWARD REFERRAL

- Most infants with CMPA can be managed in primary care until weaned.
- Referral to a paediatric dietitian should be made prior to weaning for all infants who will require a cow's milk free diet. Infants who are breast fed should also be referred to a Paediatric Dietitian to ensure their mothers receive the appropriate milk free diet.
- Refer to secondary or specialist care if any of the following apply[1]:

  - Faltering growth with or without one or more gastrointestinal symptoms.
  - Acute systemic reactions or severe delayed reactions
  - Significant atopic eczema where multiple or cross-reactive food allergies are suspected by the parent or carer.
  - Possible multiple food allergies.
  - Persisting parental suspicion of food allergy despite a lack of supporting history (Especially where symptoms are difficult or perplexing).
  - Symptoms are not resolved on 1st line treatment

Cow's Milk Protein Allergy (CMPA) continued

TREATMENT[1,6,7]

For exclusively breast-fed babies

1. Breast milk is the ideal choice for most infants with CMPA.
2. A trial on an exclusion of cow's milk protein in the maternal diet is indicated for a minimum of two weeks.
3. Breastfeeding mothers on a milk free diet will require supplementation with 1000mg calcium per day, 10micrograms Vitamin D and 200micrograms Iodine. Iodine is important for the development of a baby's brain during pregnancy and early life. Pharmacists can be consulted for advice on a suitable over the counter supplement that can aid in meeting these requirements. The remainder of the requirement can be met by mother's diet.

For babies fed a mix of infant formula and breast milk

1. Mother should follow a cow's milk protein free diet as above
2. If these infants are shown to still react to cow's milk protein via breast milk, consider the use of aminoacid formulae as a substitute for the milk formula supplement. These infants have shown they reacted to digested and processed cow's milk protein in maternal diet and thus are likely to react to extensively hydrolysed milk formulae

If mothers' are following a milk free diet whilst providing all or some feeds as breast milk and their infants are still symptomatic, referral to the allergy clinic is appropriate for further diagnostic evaluation including possible need to extend maternal avoidance to multiple foods.

For Bottlefed babies

1. Extensively hydrolysed formulae (EHF) are the first choice
2. Amino acid formulae (AA) are suitable only when an EHF does not resolve symptoms and/or there is evidence of the following red flags:

    a. Severe gastrointestinal symptoms e.g. unresponsive rectal bleeding, Food Protein-Induced Enterocolitis Syndrome (FPIEs), eosinophilic oesophagitis (EOE), gastro-oesophageal reflux disease (GORD)
    b. Faltering growth (particularly associated with gut or skin symptoms
    c. Anaphylaxis
    d. Severe eczema
    e. Multiple allergies
    f. Symptomatic whilst still on breast milk and require "top up" formula in addition to maternal exclusion diet

Cow's Milk Protein Allergy (CMPA) continued

EXTENSIVELY HYDROLYSED FORMULAE (EHF)

First line treatment is with an extensively hydrolysed formula (EHF)

Contains Lactose

- Althera® (SMA)
  Birth to 2 years
- Pepti® 1 (Milupa Aptamil)
  Birth to 6 months
- Pepti® 2 (Milupa Aptami)
  6 months to 2 years

Lactose Free

- Nutramigen® Lipil 1 with LGG (Mead Johnson) Birth to 6 months
- Nutramigen® Lipil 2 with LGG (Mead Johnson) 6 months to 2 years
- Similac® Alimentum (Abott Nutrition)

AMINO ACID FORMULAE (AAF)

These should not normally be started in primary care, except if the infant has a history of anaphylactic reaction to cow's milk and is immediately referred to secondary care

- Alfamino® (SMA)
  From birth onwards
- Neocate LCP® (Nutricia)
  From Birth onwards (Mead Johnson)
- Nutramigen® Puramino
  From Birth onwards

Only to be used under dietetic supervision

Neocate® Junior is a new amino acid based product designed for children over the age of 1years. To be used where amino acid based formula is indicated. It is available in strawberry, vanilla and unflavoured varieties and can be used as a supplement to the diet or as a single source of nutrition. It provides flexible concentrations to meet the needs of patients. Referral to the Dietitian is necessary to enable the appropriate concentration to be advised

Neocate® spoon (Nutricia) is suitable for babies from 6 months; it has been designed to complement the weaning diet and increased variety. It contains essential vitamins and minerals but is not nutritionally complete

REVIEW AND DISCONTINUATION OF TREATMENT AND CHALLENGES WITH COW'S MILK (see Do's and Don'ts on page 3)

- **Review prescriptions regularly** to check that the formula prescribed is appropriate for the child's age.

- **Quantities of formula** required will change with age – see guide to quantities required (page 2) and/or refer to the most recent correspondence from the paediatric dietitian

- **Avoid adding to the repeat template** for these reasons, unless a review process is Established

- **Prescriptions should be stopped** when the child has outgrown the allergy (see notes 1 and 5 below)

- **Review the need for the prescription if you can answer 'yes' to any of the following questions:**
  - Is the patient over 2 years of age?
  - Has the formula been prescribed for more than 1 year?
  - Is the patient prescribed more than the suggested quantities of formula according to their age?
  - Is the patient prescribed a formula for CMPA but able to eat any of the following foods – cow's milk, cheese, yogurt, ice-cream, custard, chocolate, cakes, cream, butter, margarine, ghee? Use the 'milk ladder' to determine level of tolerance and when patient reaches the top the formula can be stopped.

- **Children with multiple or severe allergies may require prescriptions beyond 2 years.** This should always be at the suggestion of the paediatric dietitian.

- **Re-challenging cow's milk protein at home can be done with children who present with non IgE CMPA (as per children referred to in the MAP guidelines)** with the exception of those who presented with severe symptoms such as Food Protein-Induced Enterocolitis Syndrome (FPIES) or those who have coexistent positive skin or sIgE tests to cow's milk protein. Consider re-challenge when:

  - Following the diet for at least 6 months
  - Accidental exposure to CMP resulted in no symptoms
  - For children with IgE mediated CMP- refer to secondary care for SPT or SIgE tests prior to challenge in hospital

NOTES

1. **Soya formula (SMA Wysoy®)** should not routinely be used for patients with CMPA. **It should not be used at all for those under 6 months due to high phyto-oestrogen content**[8, 9]. It is more likely that children will tolerate soya formula from 1 year. Parents should be advised to purchase soya formula as it is a similar cost to cow's milk formula and readily available. **Alpro® Soya Growing up milk** may be suitable from 1 year. From 2 years supermarket calcium enriched soya or oat milk may be suitable as an alternative. **The paediatric dietitian will advise on suitable over-the-counter products for appropriate ages.**

2. **EHF and AAF have an unpleasant taste and smell**, which is better tolerated by younger patients. Unless there is anaphylaxis, advise parents to introduce the new formula gradually by mixing with the usual formula in increasing quantities until the transition is complete. Serving in a closed cup or bottle or with a straw (depending on age) may improve tolerance. In some cases the formula will need to be flavoured e.g. with the minimum amount of milkshake flavouring or vanilla essence. Care should be taken and ingredients checked in those with multiple allergies.

3. **Prescribe 1 or 2 tins initially** until compliance/tolerance is established to avoid waste.

4. **Rice milk** is **not** suitable for children under 5 years due to its arsenic content[10].

5. **Outgrowing CMPA** – 30-65% of children outgrow CMPA by 2 years of age, rising to 65-95% of children at 3 years of age.

6. **Calcium supplementation** may be required for infants depending on volume and type of formula taken. Breast-feeding mothers on a milk free diet will also require a calcium supplement.

7. Breast-feeding mothers may wish to check eligibility for free vitamins under the Healthy Start scheme https://www.healthystart.nhs.uk/

8. **Lactose free formulae** (**SMA LF®**, **Enfamil O-Lac with LIPIL®** and **Aptamil® Lactose Free)** are **not** suitable for those with CMPA.

9. **Goat's milk or sheep's milks** are **not** suitable for those with CMPA.

Gastro-oesophageal Reflux Disease (GORD)[11] NICE NG$_1$

SYMPTOMS AND DIAGNOSIS

- **GORD is the passage of gastric contents into the oesophagus causing troublesome symptoms and** or complications.
- Symptoms may include regurgitation of a significant volume of feed, reluctance to feed, distress/crying at feed times, small volumes of feed being taken.
- Diagnosis is made from history that may include effortless vomiting (not projectile) after feeding, usually in the first 6 months of life, and usually resolves spontaneously by 12-15 months age.
- It should be noted that 50% of babies have some degree of reflux at some time.
- Overfeeding needs to be ruled out by establishing the volume and frequency of feeds. Average requirements of formula are 150mls/kg/day for babies up to 6 months, and should be offered spread over 6-7 feeds.

ONWARD REFERRAL

- Infants with faltering growth as a result of GORD should be **referred to paediatric secondary care without delay.**
- **If symptoms do not improve one month** after commencing treatment refer to a paediatrician for further investigations since CMPA can co-exist with GORD and treatment as for CMPA may be required.

TREATMENT

- **If infant is thriving and not distressed** reassure parents and monitor.
- Provide advice on avoidance of overfeeding and activity after feeding. If bottlefed suggest one of the over-the-counter (OTC) thickening formulae listed below.

- **Cow& Gate® Anti-reflux** (Cow &Gate)	Birth to 1 year	contains carob gum
- **Aptamil® Anti-reflux (**Milupa)	Birth to 1 year	contains carob gum
- **Enfamil AR®** (Mead Johnson)	Birth to 18 months	contains rice starch
- **SMA Stay Down®** (SMA)	Birth to 18 month	contains corn starch

- **If bottle fed infant is not settled** - consider stopping the thickened formula, and offer a 1–2 week trial of alginate therapy (Gaviscon® Infant). Advice for those with faltering growth will be given by secondary/specialist care.
- If bottle fed infant is not gaining weight, refer to secondary/specialist care
- **If breast-fed infant is not settled** – trial with Infant Gaviscon® offered on a spoon before feeds or Carobel (add 1 scoop to 100mls of expressed breast milk or add 1 scoop to 5-10mls of expressed breast milk or infant formula, make into a past and give before a breast feed). Advice for those with faltering growth will be given by secondary/specialist care.
- **If breast fed infant is not gaining weight,** refer to secondary/specialist care
- Further information is available on NICE Clinical Knowledge Summary on 'GORD in children'[16]

REVIEW AND DISCONTINUATION OF TREATMENT

- Review after one month.
- Infants with GORD will need regular review to check growth and symptoms.
- Since GORD will usually resolve spontaneously between 12-15 months, cessation of treatment can be trialed from 12 months.

NOTES

1. Carob gum produces a thickened formula and will require the use of a large hole (fast-flow) teat.
2. Thickening formulae should not be used in conjunction with separate thickeners (e.g. carobel, nutilis, thick and easy etc.) or with medication such as ranitidine, Infant Gaviscon® or with proton pump inhibitors**.** These formulae thicken on reaction with stomach acids therefore using antacids would reduce their efficacy.
3. Thickening formulae e.g. **Enfamil AR®** react with stomach acids, thickening in the stomach rather than the bottle so there is no need to use a large hole (fast flow) teat.
4. Alert parents/carers to the need to make up thickening formulae with fridge cooled pre-boiled water (see tin for full instructions).
5. **Infant Gaviscon®** contains sodium, and should not be given more than 6 times in 24 hours or where the infant has diarrhoea or a fever. N.B. Each half of the dual sachet of Infant Gaviscon® is identified as 'one dose. To avoid errors, prescribe with directions in terms of 'dose. Dispensing pharmacists should advise about appropriate doses of OTC product.

Secondary Lactose Intolerance[12]

SYMPTOMS AND DIAGNOSIS

- Usually occurs following an infectious gastrointestinal illness but may be present alongside newly or undiagnosed coeliac disease.
- Symptoms include abdominal bloating, increased (explosive) wind, loose green stools.
- Lactose intolerance should be suspected in infants who have had any of the above symptoms that persist for more than 2 weeks.
- Resolution of symptoms within 48 hours of withdrawal of lactose from the diet confirms diagnosis.

ONWARD REFERRAL

- After 8 weeks if symptoms do not resolve when standard formula or cow's milk and/or related products are reintroduced to the diet, refer to secondary or specialist care.
- Refer to the paediatric dietitian if the child is weaned and a milk free diet is required.

TREATMENT

- Advise OTC lactose free formula for 4-8 weeks to allow symptoms to resolve. Rarely symptoms may last up to 3 months.
- In infants who have been weaned, lactose free formula should be used in conjunction with a milk free diet.
- Standard formula and/or cow's milk products should then be slowly reintroduced to the diet.
- In children over 1 year who previously tolerated cow's milk, recommend the use of lactose free full fat cow's milk, yoghurt and other dairy products which can be purchased from supermarkets (Lactofree® brand).

OVER THE COUNTER LACTOSE FREE

SMA LF® (SMA)	**Birth to 18 months but see treatment note above for those over 1 year**
Enfamil O-Lac with Lipil® (Mead Johnson)	**Birth to 18 months but see treatment note above for those over 1 year**
Aptamil Lactose Free®	**Birth to 18 months but see treatment note above for those over 1 year**

Secondary Lactose Intolerance[12]

REVIEW AND DISCONTINUATION OF TREATMENT

- Lactose free formula should not be advised for longer than 8 weeks without review and trial of discontinuation of treatment

NOTES

1. Primary lactose intolerance is less common than secondary lactose intolerance and does not usually present until later childhood or adulthood.

2. **SMA LF® and Aptamil Lactose Free®** are lactose and sucrose free, whole protein cow's milk formula.

3. **Enfamil O-Lac®** is lactose, sucrose and fructose free cow's milk formula.

4. **Soya formula (SMA Wysoy®**) should **not** routinely be used for patients with secondary lactose intolerance. **It should not be prescribed at all for those under 6 months due to high phyto-oestrogen content**. It should only be advised in patients over 6 months who do not tolerate the first line formula suggested here. Parents should be advised to purchase it as it is a similar cost to cow's milk formula and readily available

5. Lactose free formulae can be purchased from pharmacies and supermarkets at a similar cost to standard infant formulae therefore OTC purchase should be advised

Faltering growth

SYMPTOMS AND DIAGNOSIS

- Diagnosis is made when the growth of an infant falls below the 0.4th centile or crosses 2 centiles downwards on a growth chart or weight is consistently 2 centiles below length centile.
- The height/length of an infant are measured to properly interpret changes in weight using appropriate growth charts to be able to diagnose.
- It is essential to rule out possible disease related/medical causes for the faltering growth e.g. iron deficiency anaemia, constipation, GORD or a child protection issue. If identified appropriate action should be taken.

ONWARD REFERRAL

- **Infants with faltering growth should be referred to paediatric services without delay.**
- Refer any infant who is weaned to a paediatric dietitian for advice on a high energy high protein diet.
- If the problem appears related to food refusal/fussy eating, consider referral for behavioural intervention.

TREATMENT

- Prescribe an equivalent volume of high energy formula to the child's usual intake of regular formula only when an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.

HIGH ENERGY FORMULA

SMA High Energy® 200ml bottle (SMA)	Birth up to 18 months or 8kg
Infatrini® 100/200ml bottle (Nutricia)	Birth up to 18 months or 8kg
Similac High Energy® 120/200ml bottle (Abbott Nutrition)	Birth up to 18 months or 8kg

HIGH ENERGY FORMULA TO BE STARTED IN SECONDARY CARE

Infatrini Peptisorb® 200ml bottle	Birth up to 18 months or 8kg (Nutricia)

N.B. This formula is suitable for infants with faltering growth and intolerance to whole protein feeds e.g. short bowel syndrome, intractable malabsorption, inflammatory bowel disease, bowel fistulae

REVIEW AND DISCONTINUATION OF TREATMENT

- The team to whom the infant is referred should indicate who is responsible for review and discontinuation. If the team hand responsibility back to the GP this should be with an indication of what the goal is at which point discontinuation can occur.
- All infants on high energy formula will need growth (weight and height/length) monitored to ensure catch up growth occurs. Once this is achieved the formula should be discontinued to minimise excessive weight gain.

Pre-term Infants [13-15]

INDICATIONS

- These infants will have had their pre-term formula commenced on discharge from the neonatal unit.
- It is started for babies born before 35 weeks gestation, weighing less than 1.8kg at birth.
- These formulae should not be used in primary care to promote weight gain in patients other than babies born prematurely.

! ONWARD REFERRAL

- These infants should already be under regular review by the paediatricians.
- If there are concerns regarding growth whilst the infant is on these formulae, refer to the paediatric dietitian.

TREATMENT

PRE-TERM INFANT FORMULAE TO BE STARTED IN SECONDARY CARE

SMA Gold Prem 2® powder (SMA)	Birth up to a maximum of 6 months corrected age
Nutriprem 2® powder (Cow and Gate)	Birth up to a maximum of 6 months corrected age

6 months corrected age = EDD + 26 weeks

PRE-TERM INFANT FORMULA WHICH <u>SHOULD NOT</u> ROUTINELY BE PRESCRIBED

Unless there is a clinical need e.g. immunocompromised infant.

SMA Gold Prem 2® liquid (SMA)
Nutriprem 2® liquid (Cow and Gate)

Cost per 100kcals is £1.12- £1.16 for liquid compared with 24-26p for powders

REVIEW AND DISCONTINUATION OF TREATMENT

- The Health Visitor should monitor growth (weight, length and head circumference) while the baby is on these formulae.
- These products should be discontinued by 6 months corrected age.
- Not all babies need these formulae until they are 6 months corrected age.

  - If there is excessive weight gain at any stage up to 6 months corrected age, stop the pre-term infant formula and replace with standard formula. Recommend an appropriate vitamin containing vitamins A, B, C and D up to 5 years of age.

Comparative costs of infant formulae –January 2017 MIMS prices

Cow's milk protein allergy (including lactose free preparations)				
Product	**Presentation/Price**		**Cost per 100g**	**Cost per 100kcals**
Similac Alimentum	400g tin lactose free	£9.10	£2.28	£0.43
Nutramigen Lipil 1 with LGG®	400g tin lactose free	£10.99	£2.75	£0.55
Nutramigen Lipil 2 With LGG®	400g tin lactose free	£10.99	£2.75	£0.57
Aptamil Pepti 1®	400g/800g tin	£9.87/£19.73	£2.47	£0.50
Aptamil Pepti 2®	400g/800g tin	£9.41/£18.82	£2.35	£0.50
Althera®	450g	£10.68	£2.37	£0.47
Pregestimil Lipil®	400g tin lactose free	£12.19	£3.05	£0.61
Pepti-Junior®	450g tin	£13.06	£2.90	£0.55

Amino acid formulae				
Product	**Presentation/Price**		**Cost per 100g**	**Cost per 100kcals**
Alfamino	400g	£23.00	£5.75	£1.14
Nutramigen Puramino®	400g tin	£27.09	£6.77	£1.35
Neocate LCP®	400g tin	£28.70	£7.18	£1.51
Neocate Junior®	400g tin	£28.70	£7.18	£1.51

Thickening formulae				
Product	**Presentation/Price**		**Cost per 100g**	**Cost per 100kcals**
Enfamil AR	400g	£3.73*	£0.93	£0.19
SMA Stay Down® (SMA)	900g	£7.80*	£0.86	£0.16
Cow& Gate® Anti-reflux (Cow &Gate)	900g	£11.50*	£1.28	£0.26
Aptamil® Anti-reflux	900g	£12.99*	£1.44	£0.29

Lactose-free formulae for secondary lactose intolerance				
Product	**Presentation/Price**		**Cost per 100g**	**Cost per 100kcals**
Enfamil O-Lac with LIPIL®	400g lactose free	£4.93*	£1.23	£0.24
SMA LF®	430g lactose free	£5.34*	£1.24	£0.24
Aptamil® Lactose Free	400g lactose free	£5.99*	£1.50	£0.29

High energy formulae for faltering growth				
Product	**Presentation/Price**		**Cost per 100ml**	**Cost per 100kcals**
SMA High Energy®	250mls	£2.42	£0.97	£1.06
Infatrini®	125mls	£1.46	£1.16	£1.16
Infatrini®	200mls	£2.31	£1.16	£1.16
Infatrini®	500mls	£6.28	£1.26	£1.26
Infatrini Peptisorb®	200mls	£3.54	£1.77	£1.77
Similac High Energy®	200mls	£2.13	£1.07	£1.06

Similac High Energy®	48 x 60mls	£31.68	£1.10	£1.09

continued on the next page

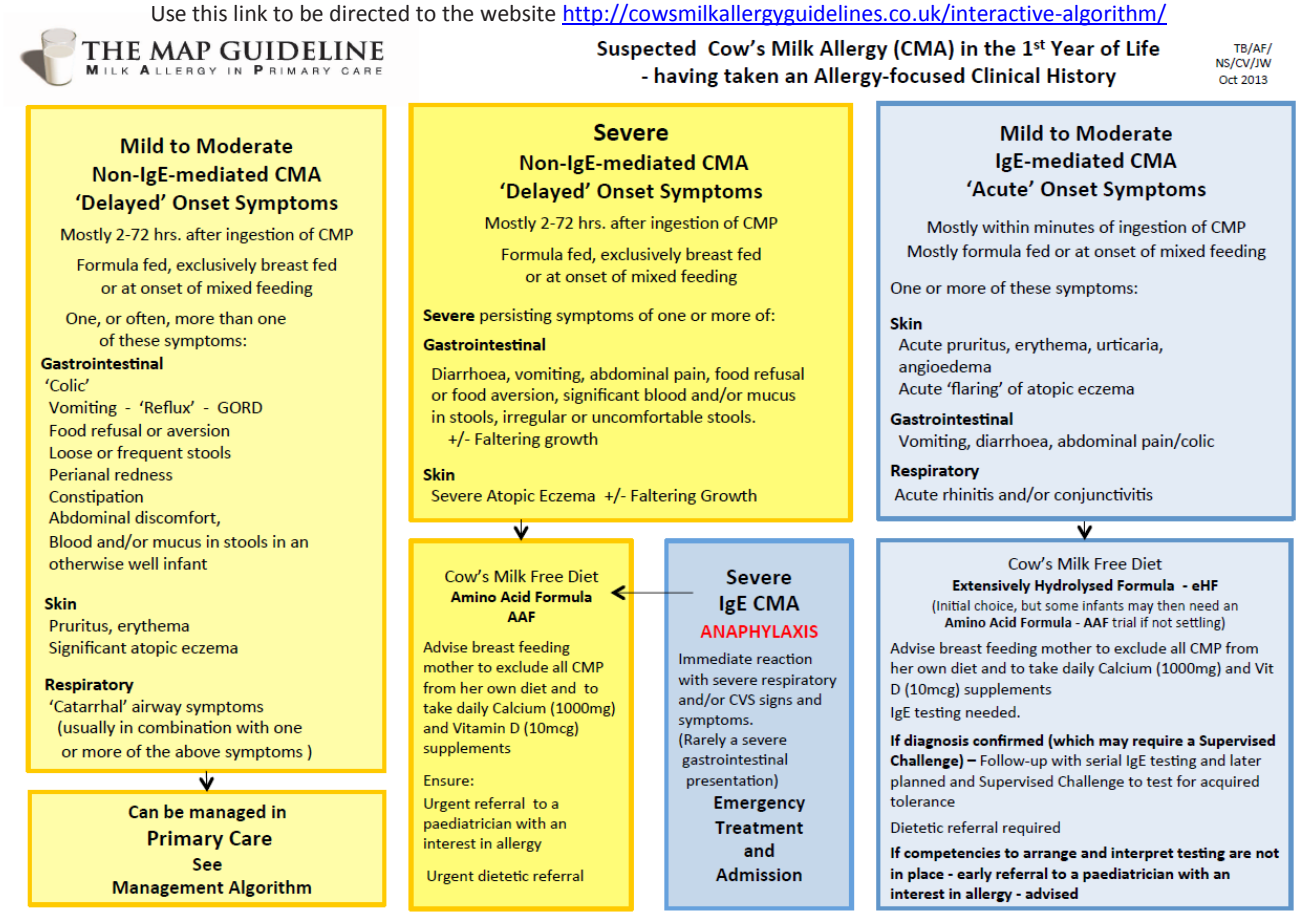
Pre-term infant formulae				
Product	**Presentation/Price**		**Cost per 100g/100ml**	**Cost per 100kcals**
SMA Gold Prem 2®	400g	£4.92	£1.23	£0.24
Nutriprem 2®	900g	£11.67	£1.30	£0.26
SMA Gold Prem 2 liquid®	200mls	£1.64	£0.82	£1.12
Nutriprem 2 liquid®	200mls	£1.74	£0.87	£1.16

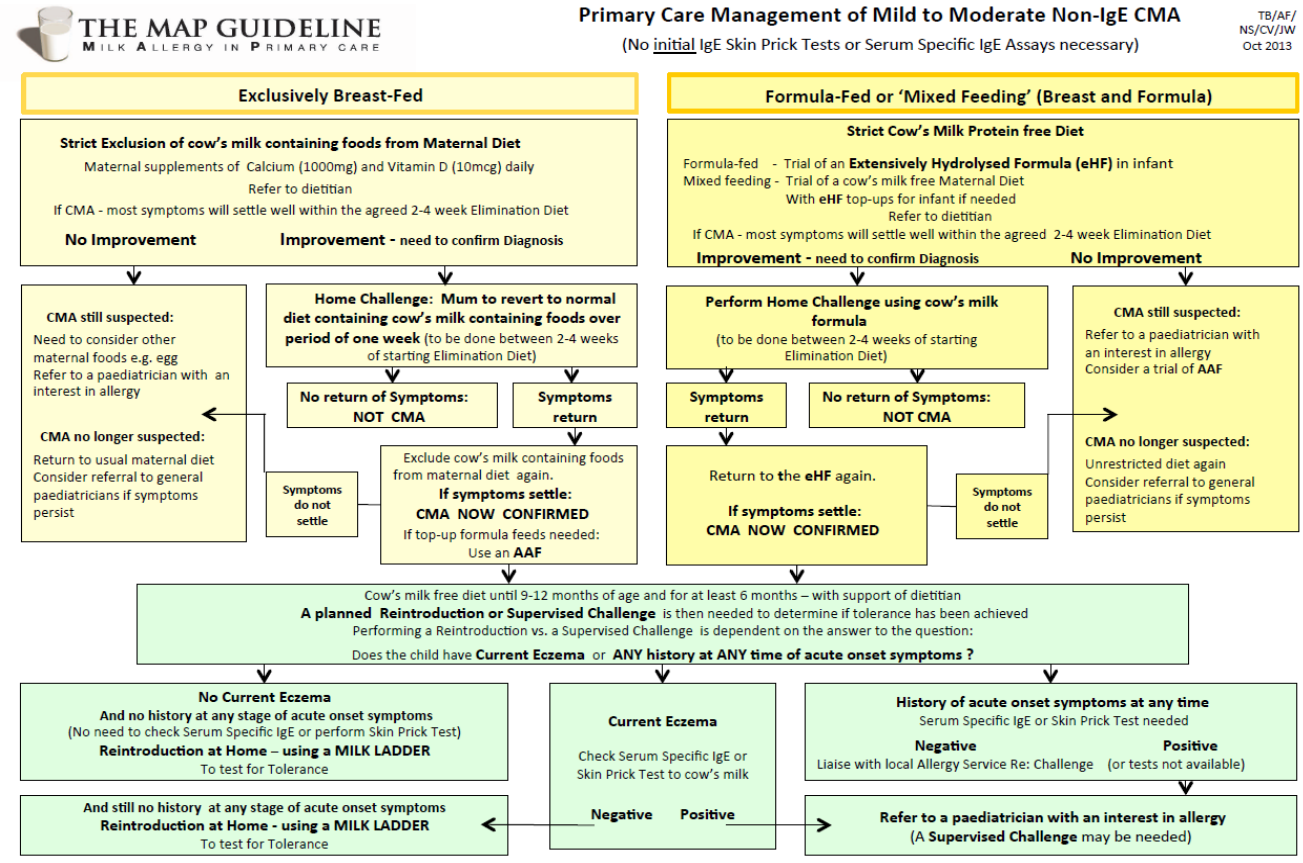
Soya based infant formulae				
Product	**Presentation/Price**		**Cost per 100g**	**Cost per 100kcals**
Wysoy®	860g	£10.31	£1.20	£0.23

* Prices may vary depending on the supermarket or pharmacy the product is purchased from

MAP Guideline Algorithm[17]

Use this link to be directed to the website http://cowsmilkallergyguidelines.co.uk/interactive-algorithm/





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