Guidelines for prescribers in primary care:

Prescribing infant formula in cows’ milk protein allergy and lactose intolerance

Updated July 2013
Review date November 2014
Summary

1. Cumbria Clinical Commissioning Group (CCG) promotes breastfeeding as the best form of nutrition for infants and this should be promoted/supported wherever possible.

2. In general all cases of milk intolerance should be referred for specialist advice with the exception of simple cases of secondary lactose intolerance for which a lactose free formula should be advised and a re-challenge in 3-4 months. Lactose intolerance is due to enzyme deficiency; it is not an allergy.

3. Lactose free milks can be bought at a similar cost to standard infant formula and prescribers should not routinely prescribe. Parents can purchase low lactose formula from their chosen retailer, however they are less commonly used and may have to be ordered. Most pharmacies and many supermarkets can obtain stock in a few days.

4. Soya products should **not** be prescribed unless advised by a paediatric consultant or dietitian due to the high incidence of soya sensitivity in infants intolerant of cows’ milk protein (10-35%) and never under 6 months of age unless on specialist advice e.g. for galactosaemia. Infants of vegan mothers who choose not to breast feed may be given soya milks but not at NHS expense.

5. Paediatric consultants and/or dietitians are asked to advise on suitable formula and the length of treatment for specialist infant formula in all cases except lactose intolerance secondary to GI insult.

6. Powdered milks should be the norm. Liquid feeds are a convenience product and should be purchased if needed.

7. Infants requiring specialist milks other than those for lactose intolerance should be referred to a paediatric consultant and/or dietitian. Prescribing can be initiated in primary care in the short term whilst waiting for specialist referral. If longer term use is required specialist opinion must be sought and there should be a clear plan for weaning and discontinuation included in the care plan from secondary care. Without written guidance to the contrary the recommended maximum ages detailed in this guidance should be applied.
THE PRESCRIBING OF INFANT FORMULA FEED IN PRIMARY CARE

**LACTOSE INTOLERANCE**
- Diarrhoea.
- Colic.
- Transient nature, usually secondary to GI insult.
- Diagnosis confirmed by improvement within 2-3 days of starting lactose-free diet.
- Resolution within two weeks.

**SIGNS & SYMPTOMS**

**ACTION**
- Breast-fed infants: Lactase Enzyme Drops (Colief) to be used when feeding. (Endorse prescription ‘ACBS’)
- Formula-fed infants: Parents to purchase low lactose formula feed from chosen retailer.
- See below for products

**NON-IgE MEDIATED COWS’ MILK PROTEIN ALLERGY (Cows’ milk protein intolerance)**
- Frequent regurgitation or vomiting, gastro-oesophageal reflux.
- Persistent distress or colic (for more than 3 hr/day at least 3 days/week for at least 3 weeks).
- Diarrhoea or constipation (with / without perianal rash).
- Blood and/or mucus in stool which may be associated with iron-deficiency anaemia.
- Colic/abdominal pain.
- Food refusal/ aversion.
- Pallor and tiredness.
- Faltering growth plus one or more gastrointestinal symptoms above.
- Atopic eczema (which may be triggered or an exacerbation of existing condition), erythema, pruritis.
- Runny nose, chronic cough, wheeze, shortness of breath.

**TREAT**
- Infants whilst waiting for referral appointment. Endorse prescription for formula feed with ‘ACBS’.
- See below for products

**REFER**
- To paediatric consultant and dietitian for advice on cows’ milk protein exclusion and reintroduction.
- To paediatric consultant and dietitian for secondary care evaluation, diagnosis and support.
- See below for products

**IgE MEDIATED COWS’ MILK PROTEIN ALLERGY**
- Angioedema of the lips, tongue and palate.
- Oral pruritis.
- Nausea.
- Colicky abdominal pain.
- Vomiting.
- Diarrhoea.
- Pruritis, erythema.
- Acute urticaria.
- Acute angio-oedema (most commonly lips, face and around the eyes).
- Nasal itching, sneezing, rhinorrhea, congestion.
- Cough, wheezing, shortness of breath.
- Signs or symptoms of anaphylaxis.

**SIGNS & SYMPTOMS**

**ACTION**
- Breast-fed infants: Lactase Enzyme Drops (Colief) to be used when feeding. (Endorse prescription ‘ACBS’)
- Formula-fed infants: Parents to purchase low lactose formula feed from chosen retailer.
- See below for products

**TREAT**
- Infants whilst waiting for referral appointment. Endorse prescription for formula feed with ‘ACBS’.
- See below for products

**REFER**
- To paediatric consultant and dietitian for advice on cows’ milk protein exclusion and reintroduction.
- To paediatric consultant and dietitian for secondary care evaluation, diagnosis and support.
- See below for products

These guidelines are produced by the Dietetic Department at University Hospitals of Morecambe Bay NHS Foundation Trust, the Dietetic Department at North Cumbria University Hospitals NHS Trust and the NHS Cumbria Medicines Management Team with input from South Lakes GP locality lead for children and families, Cumbria Partnership Trust Health Visiting team and NCUHT paediatrics dept.
THE PRESCRIBING OF INFANT FORMULA FEED IN PRIMARY CARE

LACTOSE INTOLERANCE

**Breast-fed infants:**
Lactase enzyme drops (e.g., Colief)
Dose: 4 drops per feed for 4-8 weeks or until can be gradually withdrawn without return of symptoms.

**Formula-fed infants:**
Low lactose formula:
- SMA LF
- Enfamil O-Lac

**Weaned infants:**
Avoid solids containing lactose.
Offer referral to dietitian for dietary advice.

**TREATMENT**

**NON-IgE MEDIATED COWS’ MILK PROTEIN ALLERGY (Cows’ milk protein intolerance)**

**Breast-fed infants:**
Continue breast feeding.
Exclusion of milk from mother’s diet with maternal calcium supplementation (e.g., Sandocal 1000 daily or Calcichew Forte daily).

**Formula-fed infants:**
Trial of extensively hydrolysed feed for four weeks.
- Infant up to 6 months of age:
  - Aptamil Pepti 1 or Similac Alimentum or Althera or Nutramigen 1
- Infant over 6 months of age:
  - Aptamil Pepti 2 or Similac Alimentum or Althera or Nutramigen 2.

If not resolved, trial of amino acid based feed for further four weeks:
- Nutramigen AA
- Neocate LCP

Children with enterocolitis/proctitis with faltering growth, severe atopic dermatitis and symptoms during exclusive breast feeding are more likely to require amino acid based formula.

**DURATION**

- Most infants should be able to revert to a normal diet in 4-8 weeks: gradually reintroduce usual formula/breast milk.
- May last 3 – 6 months.
- If longer term, use as necessary and refer to paediatric consultant and/or dietitian.

**IgE MEDIATED COWS’ MILK PROTEIN ALLERGY**

**Breast-fed infants:**
Exclusion of milk from mother’s diet with maternal calcium supplementation (e.g., Sandocal 1000 daily or Calcichew Forte daily).

**Formula-fed infants:**
Trial of extensively hydrolysed feed for at least two weeks.
- Infant up to 6 months of age:
  - Aptamil Pepti 1 or Similac Alimentum or Althera or Nutramigen 1
- Infant over 6 months of age:
  - Aptamil Pepti 2 or Similac Alimentum or Althera or Nutramigen 2.

If not resolved, trial of amino acid based feed for further four weeks:
- Nutramigen AA
- Neocate LCP

Children with worrying symptoms including potential anaphylaxis, oral angio-oedema and severe skin reaction should be treated with amino acid based feed as initial treatment.

With a specialist confirmed diagnosis, children are usually challenged at 9 – 12 months of age with varying degrees of success. Specialist formula may be necessary until 18 months of age or longer on advice of paediatric consultant/dietitian.

These guidelines are produced by the Dietetic Department at University Hospitals of Morecambe Bay NHS Foundation Trust, the Dietetic Department at North Cumbria University Hospitals NHS Trust and the NHS Cumbria Medicines Management Team with input from South Lakes GP locality lead for children and families, Cumbria Partnership Trust Health Visiting team and NCUHT paediatrics dept.
Introduction

This document is intended to be used in primary care by prescribers and other members of the primary healthcare team with the objective of:

• Aiding diagnosis and improving access to special infant formula where needed, minimising distress of the baby and anxiety to the parents/carers.
• Providing guidance on the nature, prescribing and cost effective supply of milk substitutes for babies by primary care.
• Providing advice on suitable quantities for prescribing, duration of supply and guidance on stopping prescribing.
• Maintaining awareness that breast milk is considered best for babies and not initiating a change from breast to formula milk if the mother is happy to continue breast feeding the infant.

This guidance is for local use in conjunction with NICE Clinical Guideline 116.

Whilst the public may be given access to this document it is not intended for use by parents or carers.

If an infant has problems with feeding, bowels, vomiting, sleep or settling, a feeding/symptom diary can be very helpful in clarifying symptoms and finding the cause. Parents/carers should be encouraged to photograph skin reactions to help the healthcare professional diagnose and assess severity of reaction.

Premature and Low Birth Weight Infants

In infants who are not fed on breast milk, or where supplementation of breast milk is required, a first stage preterm formula e.g. Nutriprem 1 will be prescribed whilst the infant is in hospital. This will be continued until the infant reaches 2000g or until 1 week before discharge, when the formula will be switched to second stage preterm formula e.g. Nutriprem 2, which can be prescribed in primary care. This should be discontinued at 6 months corrected age or before if excessive weight is gained or optimal growth and adequate dietary intake is achieved. Prescriptions should be endorsed ‘ACBS’.

Once preterm formula is stopped parents/carers should purchase standard or follow-on formula. Infants will be followed up by a paediatrician and if necessary a dietitian until optimal growth is achieved. A dietitian may recommend an additional prescribable product if an infant is not gaining adequate weight.

Appropriate vitamins and iron supplements should also be prescribed after discharge as advised by the hospital until the infant reaches 1 year of age. Iron and folic acid are usually advised for preterm babies on breast milk and vitamins for all babies.

Nutriprem should not be prescribed in primary care to promote weight gain in term infants.

Lactose intolerance

True lactose intolerance is due to enzyme deficiency; it is not an allergy.
Signs and Symptoms

Symptoms of lactose intolerance include diarrhoea (the loose stools may be frothy) and colic which persists for more than 2 weeks, abdominal bloating, excessive flatulence, perianal redness and irritation and possibly damage to the perianal tissue. Vomiting can also occur. The symptoms are transient and usually secondary to a GI insult e.g. rotavirus infection. Blood or slime in the stools is not a feature of lactose intolerance.

Primary lactose intolerance doesn’t usually present until later childhood or adult life and is due to a reduced ability to produce lactase

Breast fed infants

Breast fed babies can sometimes get temporary lactose intolerance in the early days of breast feeding. Breast fed babies with lactose intolerance can be prescribed Colief at a dose of four drops per feed for 4-6 weeks or until symptoms have resolved. This should be added to 1 tsp/5ml of expressed breast milk in a sterile container and given on a sterile plastic spoon before breast feeding as normal. Prescriptions should be endorsed ‘ACBS’. Exclusion of lactose from the maternal diet is unnecessary as lactose is present in breast milk, independent of diet.

Formula fed infants

If symptoms are mild, Comfort lactose-reduced formula could be tried, purchased over-the-counter. The health visitor is likely to have suggested this already before advising GP appointment.

Lactose free formula can be purchased at a similar price to standard formula and the GP should not routinely prescribe; advice to use lactose free formula with appropriate safety netting may be all that is needed and parents should be asked to purchase the quantity required.

Symptoms usually resolve in 2-3 days when lactose is removed from the diet and achievement of this confirms diagnosis. Most children should be able to revert back to normal formula once the gastro-intestinal insult has resolved i.e. within 4-6 weeks. The child should be re-challenged with dairy 2-3 months later. Challenge should be a very gradual re-introduction to ordinary formula if the child is less than 12 months old or to ordinary cows’ milk products if they are approaching or over 12 months of age. If re-challenge fails refer to a dietitian. Long term use is not usually necessary for lactose intolerance secondary to insult. Referral should be made to a paediatric consultant and dietitian for all suspected primary lactose intolerance where there is significant weight loss or no improvement after withdrawal of lactose. Long term need for a lactose free diet requires dietetic referral.

Parents qualifying for Healthy Start vouchers can use their vouchers to purchase lactose-free infant formula milk that is based on cow’s milk and says on the packaging that it can be used from birth. SMA-LF and Enfamil O-Lac can be purchased with vouchers.

Vouchers cannot be used on infant formulas that are not based on cow’s milk – such as soya formulas or follow-on formula milks that say on the packaging that they are for babies aged six months or older.

Stopping lactose free formula

Lactose free infant formula should not be used beyond 18 months and infants can be weaned onto proprietary lactose free milks purchased at supermarkets from 12 months old.
**Suitable products**

Used from birth to maximum 12 months, unless advised by paediatric consultant or dietitian.

Requirement is 4 - 14 x 400g/month (wide range dependent upon age and size with highest requirement at 4-6months/before weaning)

- SMA LF (SMA)
- Enfamil O-Lac (Mead Johnson)

Parents should be asked to purchase the quantity needed.

Use Lactofree from 12 months - purchase from supermarket.

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**Non-IgE mediated Cows’ Milk Protein Allergy (Cows’ Milk Protein intolerance)**

The symptoms of non-IgE mediated cows’ milk protein allergy are more extensive; see flow chart. Note this list is not exhaustive – the absence of these symptoms does not exclude food allergy

**Breast fed infants**

Breast fed infants can display symptoms, though usually less severe, as some cows’ milk proteins from the mothers diet may be expressed in breast milk. Mothers should be encouraged to continue feeding whilst following a milk free diet and given additional calcium e.g. Sandocal 1000 daily or Calcichew Forte daily.

Babies should be weaned onto a cows’ milk free diet but referral to secondary care is still indicated to exclude other conditions and for appropriate dietary advice.

**Formula fed infants**

Infants should be given a cows’ milk protein free diet until at least 9 months of age, using a suitable formula and referred for diagnosis, dietitian support and advice on duration of treatment and the need for and timing of re-challenge to test if the intolerance has resolved. With a specialist confirmed diagnosis, children are usually challenged at 9 – 12 months of age with varying degrees of success.

Most children grow out of their intolerance by 18-24 months of age.

Infants and children should also be referred to a paediatric consultant if growth/weight gain is not satisfactory on the special diet, if symptoms are severe or there are other medical conditions present.

If symptoms were severe e.g. angio-oedema, cows’ milk protein challenges should be done under specialist supervision.

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**Suitable products**

Used from birth to maximum 18 months (longer only on advice of paediatric consultant/dietitian)

Requirement 4 - 14 x 400g/month

(wide range dependent upon age and size with highest requirement at 4-6months/before weaning).
Aptamil Pepti 1 (Aptamil) up to 6 months of age*
Aptamil Pepti 2 (Aptamil) over 6 months of age*
*Aptamil Pepti contains some lactose and may not be suitable for infants with secondary lactose intolerance.
Similac Alimentum from birth onwards
Althera from birth onwards.
Nutramigen 1 (Mead Johnson) up to 6 months of age.
Nutramigen 2 (Mead Johnson) over 6 months of age.
Neocate LCP (Nutricia).
Nutramigen AA (Mead Johnson).

These are the most commonly used products but this list is not exhaustive.

Children with enterocolitis/proctitis with faltering growth, severe atopic dermatitis and symptoms during exclusive breast feeding are more likely to require amino acid based formula.

Prescriptions should be endorsed ‘ACBS’.

**Stopping prescription formula**

Any child still prescribed cows’ milk protein free milk by 2 years of age should be weaned onto supermarket bought milk e.g. calcium enriched soya milk or goats milk. By 2y 6m prescription formula should no longer be needed.

Sheep or goats milk are tolerated by 25% of children with cows milk protein intolerance and the paediatric consultant or dietitian will advise on the suitability of these products for infants from 1 year of age.

**IgE mediated Cows Milk Protein Allergy**

Much of the information for non-IgE mediated cows’ milk protein allergy applies, however cows’ milk protein reintroduction should be managed by secondary care possibly with allergy testing and admission to hospital day care for oral challenge.

**Soya Based Formula**

In 2004 the Chief Medical Officer issued a statement advising against the use of soya-based formula in infants even if they have cows’ milk protein allergy or lactose intolerance. This is due to its phyto-oestrogen content which could give hormonal side effects e.g. fertility problems in adulthood and the increased risk of sensitisation to soya protein which occurs in 3 out of 5 infants with cows’ milk protein allergy. This is especially important in infants under 6 months of age because milk is their only source of nutrition. Soya formula is not hypoallergenic and should not be used in preference to a hypoallergenic formula. They should not be used under 6 months of age unless advised by specialist team.

Use of soya milk should be limited to exceptional circumstances e.g. infants of vegan parents who are not breast feeding or infants that do not tolerate other special infant formulas. These parents should be advised of the risks so they can make an informed choice. Wysoy and Infasoy can be used over 6 months of age on specialist advice and can be purchased for the same cost as standard milks and therefore should not be prescribed.
Other specialist infant formula

Secondary care will lead in prescribing for several special groups of infants such as:

- Pre-term and low birth weight infants (may also require iron and vitamin supplements).
- Disease specific conditions.
- Complex food intolerances and allergies.
- Faltering growth.
- Complex medical cases.
- Cystic Fibrosis.

Dietitians may not be involved in the care of premature and low birth weight infants unless there are problems achieving optimal growth but are involved in the care of all other patients groups above; dietary requirements will be assessed and a formula will be chosen on an individual patient basis.

All such prescribing should be initiated by secondary care. Once stabilised the GP will be informed and should take over the prescribing. The letter from secondary care should include details of prescriptions needed, all planned monitoring and follow up intended and guidance for the GP on when the formula should be stopped.

Children with cystic fibrosis will be on vitamin supplements throughout their lives and on an individual basis determined by their hospital specialists.
References


Acknowledgements:

Appendix 1: Choosing an infant formula feed for lactose intolerance and cows' milk protein allergy.
To be used in conjunction with NHS Cumbria guidelines “Prescribing infant formula in cows’ milk protein allergy and lactose intolerance”.

<table>
<thead>
<tr>
<th>Key</th>
<th>Manufacturer</th>
<th>Characteristics</th>
<th>Indications</th>
<th>AgeRange</th>
<th>Available OTC</th>
<th>Size and price*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not to be prescribed routinely in primary care. Parents can be advised to purchase these products. Prescribing should only occur in exceptional circumstances where refusal to prescribe may put the patient at risk.</td>
<td>SMA Comfort</td>
<td>SMA</td>
<td>Partially hydrolysed whey, protein, prebiotics, modified fat and thickeners Reduced lactose</td>
<td>Birth to 1 year</td>
<td>Yes</td>
<td>Not in MIMs Price varies depending on retailer.</td>
</tr>
<tr>
<td></td>
<td>MilupaAptamil</td>
<td>Enfamil O-Lac</td>
<td>Lactose free</td>
<td>Lactose intolerance</td>
<td>Birth to 1 year</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Cow &amp; Gate Comfort</td>
<td>Cow &amp; Gate</td>
<td>Partially hydrolysed whey, protein, prebiotics, modified fat and thickeners</td>
<td>Birth to 1 year</td>
<td>Yes</td>
<td>Not in MIMs Price varies depending on retailer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low lactose</td>
<td>Lactose free</td>
<td>Lactose intolerance</td>
<td>Birth to 1 year</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Prescribing not to be initiated in primary care for lactose intolerance or cows’ milk protein allergy. (Prescribing may be continued in primary care following paediatric consultant/dietitian advice. See also notes for soya milk below table).

Prescribing can be initiated in primary care whilst waiting for appointment with paediatric consultant/dietitian and continued following secondary care diagnosis/recommendation.
<table>
<thead>
<tr>
<th>Extensively Hydrolysed</th>
<th>Manufacturer</th>
<th>Description</th>
<th>Management</th>
<th>Age Range</th>
<th>Available Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AptamilPepti 1</strong></td>
<td>MilupaAptamil</td>
<td>Extensively hydrolysed whey. 40% lactose – still suitable for most infants with secondary lactose intolerance.</td>
<td>Diagnosis and management of CMPA.</td>
<td>Birth to 6 months</td>
<td>400g = £9.54 (£2.39/100g) 900g = £21.46 (£2.38/100g)</td>
</tr>
<tr>
<td><strong>AptamilPepti 2</strong></td>
<td>MilupaAptamil</td>
<td>Extensively hydrolysed whey 40% lactose – still suitable for most infants with secondary lactose intolerance.</td>
<td>Diagnosis and management of CMPA.</td>
<td>6 months onwards</td>
<td>900g = £20.48 (£2.28/100g)</td>
</tr>
<tr>
<td><strong>Althera</strong></td>
<td>Vitafllo</td>
<td>Extensively hydrolysed whey 40% lactose – still suitable for most infants with secondary lactose intolerance.</td>
<td>Diagnosis and management of CMPA.</td>
<td>Birth onwards</td>
<td>450g = £10.68 (£2.37/100g)</td>
</tr>
<tr>
<td><strong>NutramigenLipil 1</strong></td>
<td>Mead Johnson</td>
<td>Extensively hydrolysed casein Clinically lactose free.</td>
<td>Diagnosis and management of CMPA.</td>
<td>Birth to 6 months</td>
<td>400g = £10.38 (£2.60/100g)</td>
</tr>
<tr>
<td><strong>NutramigenLipil 2</strong></td>
<td>Mead Johnson</td>
<td>Extensively hydrolysed casein Clinically lactose free.</td>
<td>Diagnosis and management of CMPA.</td>
<td>6 months onwards</td>
<td>400g = £10.38 (£2.60/100g)</td>
</tr>
<tr>
<td><strong>SimilacAlimentum</strong></td>
<td>Abbott Laboratories Ltd</td>
<td>Extensively hydrolysed casein. Clinically lactose free.</td>
<td>Diagnosis and management of CMPA.</td>
<td>Birth onwards</td>
<td>400g = £9.10 (£2.28/100g)</td>
</tr>
<tr>
<td><strong>Pepti- Junior</strong></td>
<td>Cow &amp; Gate</td>
<td>Extensively hydrolysed whey. 50% medium chain triglycerides (MCT) Clinically lactose free.</td>
<td>Whole protein and/or disaccharide intolerance, short bowel syndrome or where amino acids/peptides indicated in conjunction with MCT</td>
<td>Birth onwards</td>
<td>450g = £12.19</td>
</tr>
<tr>
<td><strong>Pepdite</strong></td>
<td>Nutricia</td>
<td>Extensively hydrolysed pork collagen and soya 5% MCT Clinically lactose free.</td>
<td>Whole protein and/or disaccharide intolerance, short bowel syndrome, bowel fistulae or protracted diarrhoea</td>
<td>Birth to 12 months</td>
<td>6 x 400g = £103.92</td>
</tr>
<tr>
<td><strong>Pepdite 1+</strong></td>
<td>Nutricia</td>
<td>Extensively hydrolysed pork collagen and soya 5% MCT Clinically lactose free.</td>
<td>Whole protein and/or disaccharide intolerance, short bowel syndrome bowel fistulae or protracted diarrhoea</td>
<td>12 months onwards</td>
<td>6 x 400g = £109.08</td>
</tr>
<tr>
<td><strong>PregestemilLipil</strong></td>
<td>Mead Johnson</td>
<td>Extensively hydrolysed casein. 55% MCT Clinically lactose free.</td>
<td>Whole protein and/or disaccharide intolerance, short bowel syndrome or multiple malabsorption</td>
<td>Birth onwards</td>
<td>400g = £11.51</td>
</tr>
<tr>
<td><strong>InfatriniPeptisorb</strong></td>
<td>Mead Johnson</td>
<td>Extensively hydrolysed whey. 55% MCT Clinically lactose free.</td>
<td>Malnutrition in infants with whole protein and/or disaccharide intolerance, short bowel syndrome or bowel fistulae</td>
<td>Birth to 18 months (or 9kg)</td>
<td>No</td>
</tr>
<tr>
<td><strong>InfatriniPeptisorb</strong></td>
<td>Mead Johnson</td>
<td>Extensively hydrolysed whey. 55% MCT Clinically lactose free.</td>
<td>Malnutrition in infants with whole protein and/or disaccharide intolerance, short bowel syndrome or bowel fistulae</td>
<td>Birth to 18 months (or 9kg)</td>
<td>No</td>
</tr>
</tbody>
</table>

**Notes:**
- All products are extensively hydrolysed, which means they are made up of small pieces of protein or disaccharides to help reduce allergenic potential.
- Pepti- Junior contains 50% medium chain triglycerides (MCT) and is suitable for infants with short bowel syndrome or whole protein and/or disaccharide intolerance.
- InfatriniPeptisorb contains 55% MCT and is suitable for infants with whole protein and/or disaccharide intolerance, short bowel syndrome or bowel fistulae.
- All products are clinically lactose free.

**Prices:**
- 400g = £9.54 (£2.39/100g)
- 6 x 400g = £103.92
- 6 x 400g = £109.08
- 900g = £21.46 (£2.38/100g)
- 900g = £20.48 (£2.28/100g)

**Diagnosis and Management:**
- CMPA (Cow’s Milk Protein Allergy) is diagnosed by a healthcare professional based on a clinical history and a positive skin prick test or a blood test for IgE antibodies to cow’s milk.
- Management may involve a specialized infant formula, such as those listed above, and sometimes a cow’s milk challenge under medical supervision.
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Characteristics</th>
<th>Indications</th>
<th>AgeRange</th>
<th>Available OTC</th>
<th>Size and price*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amino acid based</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nutramigen AA</td>
<td>Mead Johnson</td>
<td>100% Amino Acid</td>
<td>Reacted to extensively hydrolysed formula. Multiple food allergies. History of severe acute reactions.</td>
<td>Under 1 year</td>
<td>No</td>
</tr>
<tr>
<td>Neocate LCP</td>
<td>SHS</td>
<td>100% Amino Acid</td>
<td>Reacted to extensively hydrolysed formula. Multiple food allergies. History of severe acute reactions.</td>
<td>0-12 months</td>
<td>No</td>
</tr>
<tr>
<td>Neocate Advance</td>
<td>SHS</td>
<td>100% Amino Acid</td>
<td>As for Neocate LCP</td>
<td>1 year onwards</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15x50g=£44.84</td>
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<tr>
<td>Neocate Active</td>
<td>SHS</td>
<td>100% Amino Acid</td>
<td>As for Neocate LCP</td>
<td>1 year onwards</td>
<td>No</td>
</tr>
<tr>
<td>Neocate Spoon</td>
<td>SHS</td>
<td>100% Amino Acid</td>
<td>As for Neocate LCP, Spoonable product – not for tube or bottle feeding.</td>
<td>6 months onwards</td>
<td>No</td>
</tr>
<tr>
<td><strong>Soya-based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infasoy</td>
<td>Cow &amp; Gate</td>
<td>Lactose free</td>
<td>Galactosaemia Galactokinase deficiency. Not to be prescribed except on specialist advice</td>
<td>See notes below ◊</td>
<td>Yes</td>
</tr>
<tr>
<td>Wysoy</td>
<td>SMA</td>
<td>Lactose free</td>
<td>Galactosaemia Galactokinase deficiency. Not to be prescribed except on specialist advice</td>
<td>See notes below ◊</td>
<td>Yes</td>
</tr>
</tbody>
</table>

List inclusive of products on the market at the time of writing.
* Prices taken from Monthly Index of Medical Specialities (MIMS) May 2013. Where infant formula can be bought OTC, prices may vary between different retailers. For up to date prices see latest edition of MIMs.

** Healthy Start vouchers can be used to purchase lactose-free infant formula milk that is based on cow’s milk and says on the packaging that it can be used from birth. SMA-LF and Enfamil O-Lac can be purchased with vouchers. Vouchers cannot be used on infant formulas that are not based on cow’s milk – such as soya formulas or follow-on formula milks that say on the packaging that they are for babies aged six months or older.

◊ Use of soya milk should be limited to exceptional circumstances e.g. infants of vegan parents who are not breast feeding or infants that do not tolerate other special infant formulas. These parents should be advised of the risks (See guidance) so they can make an informed choice. Wysoy and Infasoy can be used over 6 months of age on specialist advice and can be purchased for the same cost as standard milks and therefore should not be prescribed.
Detailed guidance about prescribing of formula in pre-term infants is not covered in this guidance. However, it should be noted that Nutriprem 1, Aptamil Preterm and SMA Gold Prem 1 should not be prescribed in primary care. Nutriprem 2 and SMA Gold Prem 2 can be continued in primary care (following moving to this second stage pre-term formula in hospital). This should be discontinued at 6 months corrected age or before if excessive weight is gained or optimal growth and adequate dietary intake is achieved.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Characteristics</th>
<th>Indications</th>
<th>AgeRange</th>
<th>Available OTC</th>
<th>Size and price*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutri prem 1</strong></td>
<td>Cow &amp; Gate</td>
<td>Preterm/low birth weight infants in hospital</td>
<td>From birth until hospital discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aptamil Preterm</strong></td>
<td>Milupa</td>
<td>Preterm/low birth weight infants in hospital</td>
<td>From birth until hospital discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMA Gold Prem 1</strong></td>
<td>SMA Nutrition</td>
<td>Preterm/low birth weight infants in hospital</td>
<td>From birth until hospital discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nutri prem 2</strong></td>
<td>Cow &amp; Gate</td>
<td>Preterm infants following discharge</td>
<td>Until 6 months corrected age. See above #</td>
<td></td>
<td>900g = £11.24</td>
</tr>
<tr>
<td><strong>SMA Gold Prem 2</strong></td>
<td>SMA Nutrition</td>
<td>Preterm infants following discharge</td>
<td>Until 6 months corrected age. See above #</td>
<td></td>
<td>400g = £4.78</td>
</tr>
</tbody>
</table>
For more information contact...

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