Hampshire Infant Feeding guidelines and Appropriate prescribing of specialist infant formulae

These guidelines were written by the Prescribing Support dietitian for North Hampshire and West Hampshire CCGs in collaboration with Paediatricians and Paediatric dietitians in Hampshire, Health Visiting teams from Southern Health and Solent, and the 8 CCGs across Hampshire

Supported by
Frimley Health NHS Foundation Trust
Hampshire Hospital NHS Foundation Trust
Portsmouth Hospitals NHS Foundation Trust
University Hospital Southampton NHS Foundation Trust

Isle of Wight NHS Trust
Solent NHS Trust
Southern Health NHS Foundation Trust

Isle of Wight Clinical Commissioning Group
Fareham and Gosport Clinical Commissioning Group
North East Hampshire and Farnham Clinical Commissioning Group
North Hampshire Clinical Commissioning Group
Portsmouth Clinical Commissioning Group
Southampton City Clinical Commissioning Group
South Eastern Hampshire Clinical Commissioning Group
West Hampshire Clinical Commissioning Group

And
Contents

- Introduction
- Note on breastfeeding
- GPs quick prescribing guide
- Guide quantities of formula to prescribe
- Dos and Don’ts of Prescribing Specialist Infant Formulae
- Common Specialised Infant formulae used in primary care
- **Cow’s Milk Protein Allergy (CMPA or CMA)**
  - Flow chart
  - Additional notes
- Gastro-oesophageal reflux in infancy (GOR)
  - Flow chart
  - Additional notes
- Pre-term Infants
  - Flow charts
  - Additional notes
- Faltering Growth
  - Flow chart
  - Additional notes
- Secondary Lactose Intolerance
  - Flow chart
  - Additional notes
- Infant Colic
  - Flow chart
  - Additional notes
- Appendices (parents leaflets and communication tools)
- References
- Acknowledgments

**Colour key for prescribing used in these guidelines:**

- Over the counter products **Not for prescribing**
- Prescribe as first line
- Prescribe as second line
- Should not routinely be commenced in primary care
- Should not routinely be prescribed
Introduction

Breastfeeding is the healthiest way to feed a baby. This should be promoted and supported. Giving formula to a breastfed baby will reduce breastmilk supply.

Purpose of the guidelines
The cost of all infant formulae prescribed in 2015-2016 was just under £3.3 million in Hampshire, 73% of which is for hypo-allergenic formulae. This has been increasing by 15% each year for the last 3 years. A North Hampshire CCG GPs unpublished audit has shown that 25% of infant formulae are prescribed inappropriately: either the wrong formula is used for the condition or age, or the wrong quantity. Therefore, these guidelines aim to assist health professionals with information on the use of prescribable infant formula and the conditions for which they are usually prescribed.

Each condition has a stand-alone section and is laid out for easy printing, with a flow chart on page one and additional notes at the back. However they are presented together in this document as some infants can present with one or more conditions simultaneously.

The guidelines are targeted at infants 0-12 months. However, some of the prescribable items mentioned here can be used past this age, usually under the recommendation of a paediatric dietitian or paediatrician.

Limitations of the guidelines:
The guidelines represent current standards developed with the best evidence available at this time (see reference list). They will be updated as new evidence, resources and products arise. The recommended level of onward referrals to paediatricians and paediatric dietitians in these guidelines may be difficult to achieve because of local services provision and limited staffing resources. Please check with your local providers.

Dietetic departments in Hampshire:

<table>
<thead>
<tr>
<th>Area</th>
<th>Hospital</th>
<th>Address</th>
<th>Main switchboard</th>
<th>Dietitians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southampton University Hospital Southampton NHS Foundation Trust</td>
<td>University Hospital Southampton</td>
<td>Tremona Road, Southampton SO16 6YD</td>
<td>023 8077 7222</td>
<td>02381206072</td>
</tr>
<tr>
<td>Basingstoke Basingstoke and North Hampshire Hospital Hampshire Hospitals NHS Foundation Trust</td>
<td></td>
<td>Aldermaston Road, Basingstoke RG24 9NA</td>
<td>01256 473202</td>
<td>01256 852644</td>
</tr>
<tr>
<td>Winchester Royal Hampshire County Hospital Hampshire Hospitals NHS Foundation Trust</td>
<td></td>
<td>Romsey Road, Winchester SO22 5DG</td>
<td>01962 863535</td>
<td>01962 824731</td>
</tr>
<tr>
<td>Portsmouth Queen Alexandra Hospital Portsmouth Hospitals NHS Trust</td>
<td></td>
<td>Cosham, Portsmouth PO6 3LY</td>
<td>023 9228 6000</td>
<td>extensions 4348/4349</td>
</tr>
<tr>
<td>Community: Havant Health Centre</td>
<td></td>
<td>Civic Centre Road, Havant PO9 2AY</td>
<td></td>
<td>023 92324859 023 9234488</td>
</tr>
<tr>
<td>Frimley Frimley Park Hospital Frimley Health NHS Foundation Trust</td>
<td></td>
<td>Portsmouth Rd, Frimley Surrey GU16 7UJ</td>
<td>01276 604604</td>
<td>01276 604053</td>
</tr>
<tr>
<td>Isle of Wight St Mary’s Hospital Isle of Wight NHS Trust</td>
<td></td>
<td>Parkhurst Road, Newport, Isle of Wight, PO30 5TG</td>
<td>01983 822099</td>
<td>01983 534790</td>
</tr>
</tbody>
</table>

No pharmaceutical sponsorship or rebate were received during the writing of these guidelines
Note on Breastfeeding

“Breastfeeding has profoundly beneficial effects on the lives of infants, children and their mothers, and is an arena where the interests of mothers and babies align with those of the health service and wider society” Professor Mike Kelly, Director of the Centre for Public Health Excellence. The National Institute for Health and Clinical Excellence (NICE)

Nearly every woman can successfully breastfeed her baby(ies) but almost everyone needs help and support to achieve this.

The language we use and the way we present information is vitally important: ‘Breast is best’ can be seen as idealistic, and for many mothers, choosing a formula is simply good enough. More over if breastfeeding is not achieved/not possible, mothers may feel a sense of failure.

So, rather than listing the benefits of breastfeeding, here is a table showing the risk associated with not breastfeeding:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excess risk (approximated using odds ratios)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Among full-term infants</strong></td>
<td></td>
</tr>
<tr>
<td>Hospitalisation for lower respiratory tract disease in the 1st year</td>
<td>257%</td>
</tr>
<tr>
<td>Diarrhoea and vomiting (gastrointestinal infection)</td>
<td>178%</td>
</tr>
<tr>
<td>Acute ear infection (otitis media)</td>
<td>100%</td>
</tr>
<tr>
<td>Asthma, with family history</td>
<td>67%</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>64%</td>
</tr>
<tr>
<td>SIDS</td>
<td>56%</td>
</tr>
<tr>
<td>Eczema (atopic dermatitis)</td>
<td>47%</td>
</tr>
<tr>
<td>Asthma, with no family history</td>
<td>35%</td>
</tr>
<tr>
<td>Childhood obesity</td>
<td>32%</td>
</tr>
<tr>
<td>Acute lymphocytic leukaemia</td>
<td>23%</td>
</tr>
<tr>
<td>Acute myelogenous leukaemia</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Among preterm infants</strong></td>
<td></td>
</tr>
<tr>
<td>Necrotising enterocolitis</td>
<td>138%</td>
</tr>
<tr>
<td><strong>Among mothers</strong></td>
<td></td>
</tr>
<tr>
<td>Ovarian cancer</td>
<td>27%</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: adapted from US Department of Human Services 2011

In the UK, the Millennium Cohort Study suggests that each month, an estimated 53% of hospitalisation for diarrhoea and 27% for lower respiratory tract infections could have been prevented by exclusive breastfeeding (Quigley et al., 2007).

The incidence of food allergy is increased if the duration of concurrent breastfeeding at the introduction of other food proteins (including milk) is decreased (Grimshaw et al., 2013). The prevalence of cow’s milk allergy in formula fed babies is 2-3% vs 0.5% in breastfed babies (i.e. a fourfold increase risk) (Høst, 2002).

Only 17% of UK women manage to exclusively breast feed to 17 weeks (HSCI, 2010). In Hampshire the breastfeeding initiation rate remains stable at around 80%. However, only 48.8% of babies are fully or partially breastfeed at 6-8 weeks (Public Health England, 2013-2014 data).

All Health Visitors in Hampshire are BFI accredited but further work is needed to encourage, support and promote breastfeeding in Hampshire.

Really useful resources for parents and health professionals

www.healthystart.nhs.uk/  www.nhs.uk/
www.firststepsnutrition.org/  www.nice.org.uk

Produced by Prescribing Support Dietitians
Final and Hampshire wide approved version - February 2017
GPs quick prescribing reference guide

Breastfeeding is best for baby & mother and is free. So support, encourage and promote at any opportunity.

Over the counter products – Do not prescribe but advise to buy or order from chemists/supermarkets

Prescribe as first line
- Should not routinely be started in primary care unless expert knowledge available
- Should not routinely be prescribed as cheaper alternatives available

Emphasize the need to strictly follow manufacturer’s instructions when making up formula milk

<table>
<thead>
<tr>
<th>Cow’s Milk Protein Allergy (CMPA)</th>
<th>Extensively Hydrolysed (EHF) formula</th>
<th>Pre-thickened formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar Alimentum&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Take an allergy focused clinical history</td>
<td>• Reassurance of GOR normality is key but,</td>
</tr>
<tr>
<td>SMA Althéa</td>
<td>• Confirm diagnosis for mild-moderate symptoms by re-challenging</td>
<td>• Do not dismiss concerns</td>
</tr>
<tr>
<td>Milupa Aptamil Pepti 1 &amp; 2&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Diet sheets available for parents</td>
<td>• Limited evidence of efficacy for GORD</td>
</tr>
<tr>
<td>Nutramigen LGG 1 &amp; 2&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td>• Follow preparation instructions carefully</td>
</tr>
<tr>
<td>SMA Alfamino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutramigen Puramino&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neocate LCP&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA Wysoy&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gastro-Oesophageal Reflux (GOR)</th>
<th>Pre-thickened formula</th>
<th>Thickening formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enfamil AR&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA Stay Down&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aptamil Anti-reflux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cow&amp;Gate Anti Reflux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant Carobel&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GORD</th>
<th>Alginate</th>
<th>Soya formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant Gaviscon</td>
<td>• Not to be used with GOR formulae</td>
<td>For &gt;6 months only and if no allergy to Soy</td>
</tr>
<tr>
<td>Ranitidine&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Review regularly and consider CMPA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary lactose intolerance</th>
<th>Lactose-free formula</th>
<th>Soya formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enfamil O-Lac&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Recommend for up to 8 weeks at a time</td>
<td>For &gt;6 months only</td>
</tr>
<tr>
<td>SMA LF</td>
<td>• Lactose needs to be re-introduced to build up tolerance</td>
<td></td>
</tr>
<tr>
<td>Aptamil LF&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA Wysoy&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faltering growth</th>
<th>Energy dense ready-to-use formula</th>
<th>EHF with MCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar High Energy&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Ensure regular weight/length monitoring</td>
<td>Under expert recommendation only</td>
</tr>
<tr>
<td>Infratini&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Diet sheet available for parents</td>
<td></td>
</tr>
<tr>
<td>SMA High Energy&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• SMA less energy dense</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faltering growth, Malabsorption, CMPA</th>
<th>Energy dense EHF with MCTs (Medium Chain Triglycerides)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infratini Peptisorb&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepti-Junior&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregestimil Lipil&lt;sup&gt;®&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Malabsorption +/- CMPA</th>
<th>Powdered formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutriprem 2 Powder&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Follow hospital discharge instruction</td>
</tr>
<tr>
<td>SMA Gold Prem 2&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Ensure review at 6 months corrected age</td>
</tr>
<tr>
<td>Nutriprem 2 liquid&lt;sup&gt;®&lt;/sup&gt;</td>
<td>• Ensure regular weight/length monitoring</td>
</tr>
<tr>
<td>SMA Gold Prem 2 liquid&lt;sup&gt;®&lt;/sup&gt;</td>
<td>Only for exceptional circumstances as expensive convenience product</td>
</tr>
</tbody>
</table>

quantity to prescribe (approximate guide)

<table>
<thead>
<tr>
<th>Birth to 6 months</th>
<th>&gt; 6 months to 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>400g tin</td>
</tr>
<tr>
<td>3.5 - 5</td>
<td>7</td>
</tr>
<tr>
<td>5.5 - 6.5</td>
<td>9</td>
</tr>
<tr>
<td>7 - 7.5</td>
<td>11</td>
</tr>
<tr>
<td>8 - 8.5</td>
<td>12</td>
</tr>
<tr>
<td>9 - 10</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Direct parents/carers towards websites, resources and support groups (see full guideline), but in particular the Wessex Healthier Together website: [www.what0-18.nhs.uk](http://www.what0-18.nhs.uk) (includes an App)

Promote the use of the allergy focused history sheet and formula request form (see full guideline)

Infant Formulae are for age 0-12 months unless advised by a paediatrician/paediatric dietitian. Review all prescriptions for children over 2 years

Produced by Prescribing Support Dietitians Final and Hampshire wide approved version - February 2017
Guide quantities of formula to prescribe

For powdered formula, approximate number of tins for 28 days:

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>Birth to 6 months</th>
<th>&gt; 6 months to 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>400g tin</td>
<td>800g tin</td>
</tr>
<tr>
<td>3.5 - 5</td>
<td>7</td>
<td>3½</td>
</tr>
<tr>
<td>5.5 - 6.5</td>
<td>9</td>
<td>4½</td>
</tr>
<tr>
<td>7 - 7.5</td>
<td>11</td>
<td>5½</td>
</tr>
<tr>
<td>8 - 8.5</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>9 - 10</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>400g tin</th>
<th>800g tin</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-13</td>
<td>6-12</td>
<td>3-6</td>
</tr>
</tbody>
</table>

These amounts are based on:

- Infants under 6 months being exclusively formula fed and drinking 150ml/kg/day of a normal concentration formula.

  *N.B.: Some infants may require more than 150mls/kg/day, e.g. those with faltering growth.*

- Infants 6-12 months requiring less formula as solid food intake increases. 600mls of milk per day once food intake is established is recommended, mostly to meet calcium requirements.

There is a considerable variation between individuals and wastage can be significant: Formula milk is advised to be discarded soon after being made up (always follow manufacturers’ instructions).

Manufacturers’ instructions regarding safe storage once opened and expiry of ready to drink formulae should be adhered to – this may differ from manufacturer to manufacturer.

Formulae should not be used as a sole source of nutrition for infants over 6 months unless under dietetic or medical supervision.

For ready-to-use energy dense formula:

- Prescribe an equivalent volume of ready to use energy-dense formula to the infant’s usual intake until an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.

  *N.B.: Review recent correspondence from the paediatrician or paediatric dietitian.*

For babies fed via feeding tubes:

- Where all nutrition is provided via NG/NJ/PEG tubes, the paediatric dietitian will advise on appropriate monthly amounts of formula required which may exceed the guideline amounts for other infants.
## Dos and Don’ts of Prescribing Specialist Infant Formulae

### Do:
- Promote & encourage breastfeeding if clinically safe / mother is in agreement.
- Refer where appropriate to secondary or specialist care - see advice for each condition.
- Seek prescribing advice if needed in primary care from the health professional involved in the child’s care, or paediatric dietitians (see contacts page 3).
- Prescribe only 2 tins initially until compliance/tolerance is established.
- Follow the manufacturer’s advice re safe storage once mixed or opened.
- 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 and /or refer to the most recent correspondence from the paediatric dietitian.
- Review prescriptions regularly to ensure quantity is still age and weight appropriate.
- Review any prescription (and seek guidance from a paediatric dietitian if appropriate) where:
  - The child is over 2 years old
  - The formula has been prescribed for more than 1 year
  - Greater amounts of formula are being prescribed than would be expected
  - The patient is prescribed a formula for CMPA* but able to drink cow’s milk

### Don’t:
- Prescribe lactose free formula (Aptamil LF®, SMA LF®, Enfamil O-Lac®) for infants with CMPA*.
- Prescribe low lactose /lactose free formula in children with secondary lactose intolerance over 1 year who previously tolerated cow’s milk (they can use Lactofree whole® or Alpro growing up drink® from supermarkets).
- Prescribe soya formula (SMA Wysoy®) for those under 6 months with CMPA* or secondary lactose intolerance due to high phyto-oestrogen content.
- Suggest other mammalian milks (goat’s, sheep’s…) for those with CMPA* or 2ndy lactose intolerance.
- Suggest rice milk for those under 5 years due to high arsenic content.
- Prescribe thickening formulae (SMA Staydown®, Enfamil AR®) with separate thickeners or in conjunction with medication such as Infant Gaviscon®, antacids or proton pump inhibitors.
- Suggest Infant Gaviscon® > 6 times/24 hours or if the infant has diarrhoea/fever, (due to Sodium content).
- Prescribe Nutriprem 2 Liquid® or SMA Gold Prem 2 Liquid® unless there is a clinical need, and don’t prescribe after 6 months of corrected age unless advised by a specialist.

*CMPA: Cow’s Milk Protein Allergy*
Common Specialised Infant formulae available
(Excluding non ACBS approved and highly specialised formulae)

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutriprem 2 Powder</td>
<td>900g tin</td>
<td>£11.67</td>
<td>£0.26</td>
<td>£0.20</td>
</tr>
<tr>
<td>SMA Pro Gold Prem 2</td>
<td>400g tin</td>
<td>£4.92</td>
<td>£0.24</td>
<td>£0.17</td>
</tr>
<tr>
<td>Nutriprem 2 liquid</td>
<td>200mls</td>
<td>£1.74</td>
<td>£1.15</td>
<td>£0.87</td>
</tr>
<tr>
<td>SMA Pro Gold Prem 2 liquid</td>
<td>200mls</td>
<td>£1.64</td>
<td>£1.12</td>
<td>£0.82</td>
</tr>
</tbody>
</table>

**Energy dense Formulae** – Indication: faltering growth

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similac High Energy</td>
<td>60mls</td>
<td>£0.66</td>
<td>£1.09</td>
<td>£1.10</td>
</tr>
<tr>
<td>Infatrini</td>
<td>200mls</td>
<td>£2.13</td>
<td>£1.05</td>
<td>£1.07</td>
</tr>
<tr>
<td>SMA High Energy</td>
<td>250mls</td>
<td>£2.46</td>
<td>£1.08</td>
<td>£0.98</td>
</tr>
</tbody>
</table>

**Extensively hydrolysed, energy dense formula – Indications: faltering growth, malabsorption, CMPA**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infatrini Peptisorb</td>
<td>200mls</td>
<td>£3.54</td>
<td>£1.77</td>
<td>£1.77</td>
</tr>
</tbody>
</table>

**Extensively Hydrolysed Formulae (EHF) - Indication: Cow’s Milk Protein Allergy (CMPA) 1st line**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similac Alimentum</td>
<td>400g tin</td>
<td>£9.10</td>
<td>£0.43</td>
<td>£0.29</td>
</tr>
<tr>
<td>SMA Althéa</td>
<td>450g tin</td>
<td>£10.68</td>
<td>£0.47</td>
<td>£0.31</td>
</tr>
<tr>
<td>Milupa Aptamil Pepti 1</td>
<td>400g tin</td>
<td>£9.87</td>
<td>£0.50</td>
<td>£0.34</td>
</tr>
<tr>
<td>Milupa Aptamil Pepti 2</td>
<td>800g tin</td>
<td>£19.73</td>
<td>£0.50</td>
<td>£0.34</td>
</tr>
<tr>
<td>Nutramigen LGG 1</td>
<td>400g tin</td>
<td>£10.99</td>
<td>£0.55</td>
<td>£0.37</td>
</tr>
<tr>
<td>Nutramigen LGG 2</td>
<td>400g tin</td>
<td>£10.99</td>
<td>£0.57</td>
<td>£0.40</td>
</tr>
</tbody>
</table>

**Amino Acid Formulae – Indication CMPA 2nd line unless anaphylactic reaction/reaction to breastmilk**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA Alfamino</td>
<td>400g tin</td>
<td>£23.00</td>
<td>£1.14</td>
<td>£0.79</td>
</tr>
<tr>
<td>Nutramigen Puramino</td>
<td>400g tin</td>
<td>£27.09</td>
<td>£1.35</td>
<td>£0.92</td>
</tr>
<tr>
<td>Neocate LCP</td>
<td>400g tin</td>
<td>£28.70</td>
<td>£1.51</td>
<td>£0.99</td>
</tr>
</tbody>
</table>

**EHF with Medium Chain Triglycerides (MCT)-Indication CMPA + malabsorption**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pepti-Junior</td>
<td>450g tin</td>
<td>£13.06</td>
<td>£0.55</td>
<td>£0.37</td>
</tr>
<tr>
<td>Pregestimil Lipil</td>
<td>400g tin</td>
<td>£12.19</td>
<td>£0.61</td>
<td>£0.41</td>
</tr>
</tbody>
</table>

**Lactose-free formulae – indication: secondary lactose intolerance (1st lactose intolerance rare)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enfamil O-Lac</td>
<td>400g tin</td>
<td>£4.98</td>
<td>Retail price may vary</td>
<td>Do not prescribe</td>
</tr>
<tr>
<td>SMA LF</td>
<td>400g tin</td>
<td>£5.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aptamil LF</td>
<td>400g tin</td>
<td>£5.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA Wysoy</td>
<td>860g tin</td>
<td>£10.31</td>
<td></td>
<td>See special notes</td>
</tr>
</tbody>
</table>

**Pre-thickened and Thickening formula - Indication Gastro-Oesophageal Reflux (GOR)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Cost per 100mls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enfamil AR</td>
<td>400g tin</td>
<td>£3.73</td>
<td>Retail price may vary</td>
<td>Do not prescribe</td>
</tr>
<tr>
<td>SMA Stay Down</td>
<td>900g tin</td>
<td>£7.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aptamil Anti-reflux</td>
<td>900g tin</td>
<td>£12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cow&amp;Gate Anti Reflux</td>
<td>900g tin</td>
<td>£10.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Prices correct as of MIMS January 2017*

Over the counter products – Do not prescribe
Prescribe as first line
Prescribe as second line
Should not routinely be commenced in primary care
Should not routinely be prescribed
Flowchart for managing Cow’s Milk Protein Allergy (CMPA)

Symptoms suggest CMPA (see diagnosis page) - Commonly:
- History / Family history of atopy
- Symptoms involving 2 or more systems

1. Mild to moderate Symptoms
   - No immediate reactions (usually non-IgE mediated)

2. Severe Symptoms And /or
   - Acute reaction (Usually IgE mediated)

Exclusively breastfed

- If at all possible, encourage exclusive breastfeeding

Formula Fed or mixed feeding

- Trial of Maternal strict milk free diet
  (See diet sheet in appendix)

- Trial of Extensively Hydrolysed Formula (EHF)
  ① Prescribe 2 tins of: Similac Alimentum
  ② Advise milk free diet if started solids

Review after 2 weeks

Similac Alimentum not accepted
- Consider alternative EHF (see formulary)
  Or
- Trial of soya formula if >6months
  Advise Wysoy OTC

Some Improvement
- Consider extending trial for a further 2-4 weeks Or
- Consider trial of. Amino Acid formula
  SMA Alfamino

Improvement
- Confirm diagnosis with Home Milk Challenge
  (See appendix)

No improvement
- Consider alternative diagnosis Or
- Consider referring to, or seek advice from secondary care

Symptoms return

YES
- SMPA diagnosed
  - Formula fed:
    - Prescribe suitable formula
      (Or advise Wysoy OTC)
    - Provide with resources/signpost to websites
    - Refer to paediatric dietitian
  - Breastfed:
    - Advise mother to take daily 1000 mg Calcium + 10 µg VitD OTC

NO
- Not SMPA
  - Stop milk free diet

Some infants with CMPA will also react to soya proteins so they will also need to avoid soya

● Continue strict milk free diet until about 1 year of age, or for 6 months after diagnosis (NICE, 2011)
Diagnosing CMPA (from NICE Guideline 116, MAP and BSACI)

Cow’s Milk Protein Allergy (CMPA or CMA) is the most clinically complex individual food allergy and therefore causes significant challenges in both recognising the many different clinical presentation and also the varying approaches to management, both at primary care and specialist level.

### Allergy-focused clinical history (adapted from Skypala et al. 2015) – See form in Appendix

- Personal/family history of atopic disease (asthma, eczema or allergic rhinitis) & food allergy
- Presenting symptoms and other symptoms that may be associated with CMPA (see below)
  - Age at first onset and speed of onset
  - Duration, severity and frequency
  - Setting of reaction (home, outside...)
  - Reproducibility of symptoms on repeated exposure
- Feeding history
  - Breast fed/formula fed (if breastfed, consider mother’s diet)
  - Age of introduction to solids
  - If relevant, details of any foods avoided and why
- Details of previous treatment, including medication for presenting symptoms and response to this
- Any response to the elimination and reintroduction of foods

### Acute symptoms (minutes)

- Refer to secondary care
  - Abdominal pain / Colic / excessive crying
  - Vomiting (repeated or profuse)
  - Diarrhoea (Rarely a severe presentation)
  - Urticaria
  - Acute pruritus
  - Angioedema
  - Erythema
  - Acute ‘flaring of atopic eczema
  - Red/itchy eyes
  - Blocked/runny nose, sneezing
  - Cough, wheeze, breathlessness
  - Drowsiness, dizziness, pallor, collapse
  - Anaphylaxis

### Delayed symptoms (2-72hrs)

- Refer to secondary care only if symptoms severe
  - ‘Colic’ / excessive crying
  - ‘Reflux’ - GORD
  - Blood in stool and/or mucus in otherwise well child
  - Vomiting in irritable child with back arching & screaming
  - Feed refusal or aversion
  - Diarrhoea: often protracted + propensity to faltering growth
  - Constipation: straining with defecation but producing soft stools, irregular or uncomfortable stools +/- faltering growth
  - Unwell child: delayed onset protracted D&V
    - Wide range of severity, from well child with bloody stool to shocked child after profuse D&V (FIPE)

- ‘Catarrhal’ airway symptoms
  - (Usually in combination with 1 or more other symptoms)
  - Significant to severe atopic eczema +/- faltering growth

### Gut

- (Range of symptoms & severity)
  - ‘Colic’ / excessive crying
  - ‘Reflux’ - GORD
  - Blood in stool and/or mucus in otherwise well child
  - Vomiting in irritable child with back arching & screaming
  - Feed refusal or aversion
  - Diarrhoea: often protracted + propensity to faltering growth
  - Constipation: straining with defecation but producing soft stools, irregular or uncomfortable stools +/- faltering growth
  - Unwell child: delayed onset protracted D&V
    - Wide range of severity, from well child with bloody stool to shocked child after profuse D&V (FIPE)

### Skin

- (Range of symptoms & severity)
  - Significant to severe atopic eczema +/- faltering growth

### Respiratory

- (Usually with other symptoms)
  - ‘Catarrhal’ airway symptoms

### Systemic

- Red Flags (urgent referral to secondary care):
  - Faltering growth
  - Severe atopic eczema
  - FPIES, Anaphylaxis, collapse

Produced by Prescribing Support Dietitians

Final and Hampshire wide approved version - February 2017
Cow’s Milk Protein Allergy additional notes

Breastfeeding is the optimal way to feed a baby with CMPA, with, if required, individualised maternal elimination of all cow’s milk protein foods (+ Calcium and vitamin D supplementation).

For more detailed directions to diagnose and manage CMA, use the ‘Managing Allergy in Primary care’ (MAP) guidelines (An interactive website developed by a team of specialists in the field of paediatric milk allergy but published by Nutricia).

- CMPA commonly appear when a formula is introduced in a usually breastfed baby. Therefore returning to exclusive breastfeeding should be discussed and encouraged at the earliest opportunity.
- Only about 10% of babies with CMPA will require an AAF (Murano et al., 2014). The remainder should tolerate an EHF.
- 10-14% of infant with CMPA will also react to soya proteins (and up to 50% of those with non-IgE mediated CMPA). But because of better palatability soya formula is worth considering in babies>6months.

Hypoallergenic Infant Formulae (Prices correct as of MIMS January 2017)

### Extensively Hydrolysed Formulae (EHF)
**Indication:** Mild to moderate symptoms/reactions (IgE or non IgE mediated allergies)

<table>
<thead>
<tr>
<th>Product</th>
<th>Calcium RNI (525mg/d) met in:</th>
<th>Lactose</th>
<th>Tin size</th>
<th>Cost per tin</th>
<th>Cost per 100Kcal</th>
<th>Average requirement / 28d**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similac Alimentum*</td>
<td>740mls no</td>
<td>400g</td>
<td>£9.10</td>
<td>£0.43</td>
<td>0-6months: 7-12 tins</td>
<td>6-12months: 7-12 tins</td>
</tr>
<tr>
<td>SMA Althéra*</td>
<td>800mls yes</td>
<td>450g</td>
<td>£10.68</td>
<td>£0.47</td>
<td>(800g: 6 tins)</td>
<td>(800g: 6 tins)</td>
</tr>
<tr>
<td>Milupa Aptamil Pepti 1*</td>
<td>1120mls yes</td>
<td>800g</td>
<td>£19.73</td>
<td>£0.50</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
<tr>
<td>Nutramigen LGG 1*</td>
<td>680mls no</td>
<td>400g</td>
<td>£10.99</td>
<td>£0.55</td>
<td>(800g: 6 tins)</td>
<td>(800g: 6 tins)</td>
</tr>
<tr>
<td>Milupa Aptamil Pepti 2*</td>
<td>830mls yes</td>
<td>800g</td>
<td>£18.82</td>
<td>£0.50</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
<tr>
<td>Nutramigen LGG 2*</td>
<td>600mls no</td>
<td>400g</td>
<td>£10.99</td>
<td>£0.57</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
</tbody>
</table>

### Amino Acid formulae (AAF)
**Indication:** Severe symptoms / reactions to breastmilk (IgE or non IgE mediated allergies) and if EHF tried initially but still experiencing symptoms

<table>
<thead>
<tr>
<th>Product</th>
<th>Calcium RNI (525mg/d) met in:</th>
<th>Lactose</th>
<th>Tin size</th>
<th>Cost per tin</th>
<th>Cost per 100Kcal</th>
<th>Average requirement / 28d**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfamino*</td>
<td>920mls no</td>
<td>400g</td>
<td>£23.00</td>
<td>£1.14</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
<tr>
<td>Nutramigen Puramino*</td>
<td>820mls no</td>
<td>400g</td>
<td>£27.09</td>
<td>£1.35</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
<tr>
<td>Neocate LCP*</td>
<td>800mls no</td>
<td>400g</td>
<td>£28.70</td>
<td>£1.51</td>
<td>7-12 tins</td>
<td>7-12 tins</td>
</tr>
</tbody>
</table>

Neocate Spoon is a weaning product usually for children with multiple allergies and should only be prescribed under the supervision of a paediatric dietitian or Paediatrician

Neocate Advance and Neocate Active (aka Neocate Junior) are high calorie formulas usually for children with multiple allergies and/or tube fed. They will not automatically be required over one year old.

Soy formula
**Indication:** CMPA in infants over 6 months of age, not reacting to soya

<table>
<thead>
<tr>
<th>OTC</th>
<th>Calcium RNI (525mg/d) met in:</th>
<th>Lactose</th>
<th>Tin size</th>
<th>Cost per tin</th>
<th>Cost per 100Kcal</th>
<th>Average requirement / 28d**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wysoy*</td>
<td>780mls no</td>
<td>860g</td>
<td>£10.31</td>
<td>£0.23</td>
<td>Not for ≤6months</td>
<td>Not for prescribing</td>
</tr>
</tbody>
</table>

**Top Tips**
- EHF and AA have an unpleasant taste and smell, which is better tolerated by younger babies. Unless there is anaphylaxis, advise 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.
- Warn parents that it is quite common for babies to develop green stools on these formulæ.
- Prescribe only 2 tins initially until compliance/tolerance is established. Only then give a monthly repeat prescription.

**Based on meeting Calcium requirement. However, there is a considerable variation of intake between individuals and wastage can be significant.**
Review and discontinuation of treatment (and challenge with cow’s milk)

- 60-75% of children outgrow CMPA by 2 years of age, rising to 85-90% of children at 3 years of age (EuroPrevall study, 2012).

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

- **Quantities of formula** required will change with age – see guide to quantities required. Refer to the most recent correspondence from the paediatric dietitian, or contact your local paediatric dietetic department for clarification.

- **Trial of reintroduction of cow’s milk** – should be supervised by a paediatric dietitian or Paediatrician if symptoms are severe.

- **Prescriptions can be stopped** when the child has outgrown the allergy, or on advice of the dietitian/paediatrician.

- **Review the need for the prescription if:**
  - The patient is over 2 years of age
  - The formula been prescribed for more than 1 year
  - The patient is prescribed more than the suggested formula quantities according to their age/weight
  - The patient is able to drink cow’s milk or eats yoghurts/cheese

- **Children with multiple and/or severe allergies or faltering growth may require prescriptions beyond 2 years.** This should always be on the advice of the paediatric dietitian.

Useful resources for parents and health professionals

- **Breastfeeding**
  For breast feeding and bottle feeding advice, visit the UNICEF baby friendly pages:  
  www.unicef.org.uk/BabyFriendly/  
  NHS health for life  
  First Step Nutrition

- **Local Breastfeeding support services**
  www.southernhealth.nhs.uk/services/childrens-services/breastfeeding-service/

- **Cow’s milk protein allergy**
  Allergy UK (www.allergyuk.org) or CMPA Support (www.cmpasupport.org.uk)

- **For Health professionals**
  Luyt et al. British Society for Allergy and Clinical Immunology (BSCACI) guideline for the diagnosis and management of cow’s milk allergy, July 2014 www.bsaci.org

  NICE Clinical Guideline 116 Food Allergy in Children and Young People. 2011 www.nice.org.uk
Flow Chart for managing GASTRO-OESOPHAGEAL REFLUX (GOR)

Infant presents with Gastro-oesophageal reflux

Are Red flag symptoms present?

NO

Is infant showing mark distress?

NO

Investigate or refer to secondary care using clinical judgement

YES

YES

Breastfed

Breastfeeding assessment by trained professional

Formula fed

1 Review feeding history, making up of formula, positioning...

2 Reduce feed volumes if excessive for infant’s weight (>150mls/kg/day)

3 Offer trial of smaller, more frequent feeds (6-7 feeds/24hrs is the norm)

4 Advise parent to purchase pre-thickened formula (need large hole/fast flow teat):
   - Cow&Gate Anti-reflux® (carob bean gum)
   - Aptamil Anti-reflux® (carob bean gum)
   - Or Thickening agent to add to usual formula (e.g. Instant Carobel®)
   - Or thickening formula (Needs to be made up with cool water)
     - SMA Stay Down® (corn starch)
     - Or Enfamil AR® (rice starch)

If not successful after 2 weeks

If using, STOP pre-thickened / thickening formulae or thickener

2 weeks trial of Alginate therapy, e.g. Infant Gaviscon®

Bottle fed: 1-2 doses* into 115mls (4oz) of feed

Breast fed: 1-2 doses* mixed up into a liquid and given with a spoon

PPI /H2RA can be initiated in primary care if alginate therapy is not working but it is best reserved if overt regurgitation AND Unexplained feeding difficulties or distressed behaviour or faltering growth

If successful after 2 weeks

Try stopping it at regular interval for recovery assessment as GOR usually resolves spontaneously

If not successful after 2 weeks

Refer to paediatrician for further investigation

Initiate PPI/H2RA if >1y old

Red Flags:
- Bile-stained vomit: Same day referral
- Frequent forceful (projectile) vomiting
- Blood in vomit or stool
- Faltering growth
- Abdominal distention / chronic diarrhoea
- Unwell child / fever / altered responsiveness
- Bulging fontanelle / rapidly increasing head circumference
- Late onset (after 6 months)

Reassure:
- GOR very common
- Usually begins before 8 weeks
- May be frequent
- Usually becomes less frequent with time
- Does not usually need further investigation or treatment
GOR and GORD additional notes

Full NICE guidance: [www.nice.org.uk/guidance/ng1](http://www.nice.org.uk/guidance/ng1)

**Background**

- Passive regurgitation of stomach contents into the oesophagus is a **normal** finding in infancy. Most is swallowed back into the stomach but occasionally it appears in the mouth or comes out as non forceful regurgitation. At least 40% of infants will have symptoms of reflux at some time.
- Reflux will often improve by 6-8 months but it is not unusual for an otherwise well child to continue to have intermittent effortless regurgitation up to 18 months.
- Parents/carers should seek urgent medical attention if:
  - regurgitation becomes persistently projectile
  - There is bile-stained (green or yellow-green) or blood in vomit
  - There are new concerns (marked distressed, feeding difficulties, faltering growth)
- Possible complications of GOR are:
  - Reflux oesophagitis
  - Recurrent aspiration pneumonia
  - Frequent otitis media

**GOR** (Gastro-oesophageal reflux disease) is a diagnosis reserved for those infants who present with significant symptoms and/or failure to thrive.

- Prematurity, neurodisability, family history of heartburn, hiatus hernia, congenital oesophageal atresia are associated with an increased prevalence of GORD.
- Forceful vomiting should not be ascribed to reflux without closer review of the child’s symptoms. Bilious (green) vomiting is always pathological and warrant urgent same day medical attention.
- GORD can sometimes be a sign of CMPA. The presence of eczema, a family history of allergy/atopy and additional gastrointestinal symptoms should prompt consideration of a cow’s milk protein allergy. CMPA can occur in breast fed infants (see advice on CMPA).
- Consider UTI especially if faltering growth or late onset, or frequent regurgitation + marked distress.

**Onward referrals**

<table>
<thead>
<tr>
<th>Referrals</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same day to Secondary Care</td>
<td>Worsening or forceful vomiting in infant &lt;2 months Unexplained bile-stained vomiting Haematemesis or Maleana or Dysphagia</td>
</tr>
<tr>
<td>Secondary Care</td>
<td>No improvement in regurgitation &gt;1year old Persistent faltering growth secondary to regurgitation, Feeding aversion + regurgitation, Suspected recurrent aspiration pneumonia, Frequent otitis media, Suspected Sandifer’s syndrome Unexplained apnoea, Unexplained non-epileptic seizure-like events, Unexplained upper airway inflammation If thought necessary to ensure acid suppression</td>
</tr>
</tbody>
</table>
Management of GOR

- Do not use positional management in sleeping infants. They should be placed on their back.
- Starch-based thickeners (Thick&Easy®, Nutilis®, Resource thicken up®...) are not suitable for children under 1 year (unless faltering growth/recommended by Paediatric specialist).
- Pro motility agents such as domperidone should not be initiated in primary care. There is no evidence of benefit when treating infantile GOR. They can cause paradoxical vomiting and have been associated with a risk of cardiac side effects.

Formulae available

<table>
<thead>
<tr>
<th>OVER THE COUNTER formula thickener</th>
<th>Not to be used with thickening formula or Infant Gaviscon®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant Carobel* (add to expressed breastmilk or formula)</td>
<td>From birth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVER THE COUNTER pre-thickened formulae</th>
<th>Not to be used with thickener or Infant Gaviscon®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow &amp; Gate® Anti-reflux (Cow &amp;Gate)</td>
<td>Birth to 1 year</td>
</tr>
<tr>
<td>Aptamil® Anti-reflux (Milupa)</td>
<td>Birth to 1 year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVER THE COUNTER thickening formulae</th>
<th>Not to be used with thickener or Infant Gaviscon®</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA Stay Down® (SMA )</td>
<td>Birth to 18 months</td>
</tr>
<tr>
<td>Enfamil AR® (Mead Johnson)</td>
<td>Birth to 18 months</td>
</tr>
</tbody>
</table>

- Over the counter thickeners / thickened formulae contain carob gum. This produces a thickened formula and will require the use of a large hole (fast-flow) teat.
- Thickening formulae 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. However thickening formula need to be prepared with cooled pre-boiled water, which is against recommendation of using boiled water cooled to 70°C. There is therefore an increased risk of bacteria being present in the milk. This risk should be assessed by a medical practitioner.
- Thickening formulae should not be used in conjunction with separate thickeners or with medication such as Infant Gaviscon®, antacids (e.g. Ranitidine), or with proton pump inhibitors.

Gaviscon

Alginate therapy may cause a change in the baby’s stool, and in some instance constipation.

Resources for parents and health professionals

- NICE guidelines NG1: GORD in children and young people. January 2015
- Living with reflux website: www.livingwithreflux.org/ includes a Facebook support page

- For breast feeding and bottle feeding advice, visit the UNICEF baby friendly pages: www.unicef.org.uk/BabyFriendly/
  - Bottle feeding leaflet www.unicef.org.uk/BabyFriendly/Parents/Resources/Resources-for-parents/Department-of-Health-bottle-feeding-leaflet/
- Breast feeding counsellors directory provided by the NCT, or Southern Health NHS Foundation Trust: www.nct.org.uk/branches or www.southernhealth.nhs.uk/services/childrens-services/breastfeeding-service/
Flow chart for managing PRE-TERM INFANTS

Breastmilk is the preferred milk for these babies but if needed, infants will have pre-term formula commenced in hospital before discharge. These formulae should not be used in primary care to promote weight gain in patients other than babies born prematurely.

Babies born <34 weeks gestation, weighing <2kg at birth maybe initiated on:

- Nutriprem 2® powder
  - OR
- SMA Gold Prem 2® powder

Secondary care initiation only
Prescribing to be continued by GP in primary care until infant reaches 6 months corrected age*.

Growth (weight, length & head circumference) should be monitored by the Health Visitor on a monthly basis using UK WHO growth charts.

Is there a concern with growth?
(See faltering growth flowchart)

NO

Use up to 6 months corrected age
Then change to a standard OTC formula thereafter

YES

Refer to/Alert the paediatric team
They may recommend the use of the pre-term formula until sufficient catch up growth is achieved

NOTES:
POWDER formula only to be prescribed.

Nutriprem 2® or SMA Gold Prem 2® liquids should NOT BE prescribed except in rare instances where there is a clinical need in e.g. immunocompromised infant.

This reason and duration should be clearly indicated by secondary care and communicated to the GP.

* 6 months corrected age = Expected Date of Delivery + 26 weeks
Pre-term infants additional notes

- Pre-term formulae are usually started for babies born before 34 weeks gestation, weighing less than 2kg at birth, and IUGR (intra uterine growth retardation).
- These infants should already be under regular review by the paediatricians. Check correspondence for more details.
- Pre-term and low birthweight infants are particularly vulnerable to over and underfeeding. Therefore, the Health Visitor should monitor growth monthly while the baby is on these formulae:
  - Weight and centile
  - Length and centile
  - Head circumference and centile
- Not all babies need these formulae for the full 26 weeks from expected date of delivery (EDD).
- These products should be discontinued by 6 months corrected age (unless advised by the paediatric team).

6 months corrected age = Expected Date of Delivery + 26 weeks

- If there is excessive weight gain (e.g. weight centile over 2 centiles above length centile) at any stage up to 6 months corrected age, stop the formula and change to standard OTC formula. Also notify the paediatric dietitian/paediatrician if still under their care.
- The introduction of solids should start no later than 6 months actual age (rather than corrected age) as the gut matures from birth.

### Formulae

<table>
<thead>
<tr>
<th>Formula</th>
<th>Presentation</th>
<th>Cost*</th>
<th>£/Kcal</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutriprem 2 Powder® (Cow&amp;Gate)</td>
<td>900g tin</td>
<td>£11.67</td>
<td>£0.26</td>
<td>Birth up to a maximum of 6 months corrected age</td>
</tr>
<tr>
<td>SMA Pro Gold Prem 2® (SMA)</td>
<td>400g tin</td>
<td>£4.92</td>
<td>£0.24</td>
<td></td>
</tr>
<tr>
<td>Nutriprem 2 liquid® (Cow&amp;Gate)</td>
<td>200mls</td>
<td>£1.74</td>
<td>£1.15</td>
<td>Should not be routinely prescribed unless there is a clinical need e.g. immunocompromised infant</td>
</tr>
<tr>
<td>SMA Pro Gold Prem 2 liquid® (SMA)</td>
<td>200mls</td>
<td>£1.64</td>
<td>£1.12</td>
<td></td>
</tr>
</tbody>
</table>

* MIMS January 2017

### Useful resources for parents and health professionals

- Bliss website and helpline number: [www.bliss.org.uk/](http://www.bliss.org.uk/)  helpline: 0500 618140
- Unicef baby friendly resources: [www.unicef.org.uk/BabyFriendly/Parents/](http://www.unicef.org.uk/BabyFriendly/Parents/)
- Royal college of Paediatric and Child health website for WHO growth charts and tutorial: [www.rcpch.ac.uk/growthcharts](http://www.rcpch.ac.uk/growthcharts)
Flow Chart for managing Faltering Growth

Faltering growth can be defined as any of the following (DoH, 2009; Shaw 2015):

- No catch up from low birth weight
- Weight falling through 2 centiles space
- Weight or length falls below 0.4th centile
- Cross down through length/height centiles as well as weight
- Weight is 2 centiles or more below length centile (low weight for height)

Ensure UK WHO growth charts are used

Is there an underlying condition that has been detected AND treated?
Acute/chronic illness, Safeguarding issue, Feeding issues, GORD, Coeliac disease...?

YES

① Check feeding pattern:
Latching, frequency, duration and tolerance, feed preparation, volumes taken...
Solid foods intake, timing, quantity and frequency (if ≥6m)

If simple measures above not successful

NO

② Consider High Calorie infant formula:
- Infatrini
- Similac High Energy

Suitable for infants up to 18months or 8-9kg

③ Referral to paediatrician and/or paediatric dietitian

NO

Is infant weaned?

YES

- Ideally, Health Visitor to observe mealtimes
- Give simple advice around managing any behavioural aspects (see appendix ‘What can I do if my child won’t eat’ leaflet)
- Ensure parents/carers are given advice on high calorie foods (see appendix ‘Introducing high energy solids’)

If simple measures above not successful
Refer to paediatrician

Monitor growth (length and weight) to ensure catch up growth and discontinue when weight is 1 centile deviations above length to maximise growth and minimise excessive weight gain
Faltering growth additional notes

Symptoms and diagnosis

- It is not a condition in itself – there are lots of different possible explanations, with feeding problems being the most common.
- UK WHO growth charts should be used to plot weight, length and head circumference.
- The height/length of an infant needs to be measured to properly interpret changes in pattern.
- If a child is not growing at the expected rate, it is important that this is picked up at an early stage and the reasons investigated. E.g. acute illness, iron deficiency anaemia, CMPA, Coeliac disease, GORD or a child safeguarding issue.
- In the vast majority of cases, there isn’t an underlying medical problem and a baby can be successfully treated at home.
- Crossing down centiles might not be a cause for concern, e.g. in babies from mothers with gestational diabetes. Use your clinical judgement.

Treatment

- **6 months and over:** Ensure appropriate solids are offered at regular intervals; ask about volume and frequency of milk and solids food. Once a food routine is established, milk intake should be around 500-600mls a day. More than that may compromise appetite for solids.
- **Under 6 months:** Ensure appropriate frequency and volume of feeds, as well as preparation technique. An infant’s requirements are around 150mls/kg/day and most will need one or more feeds during the night. Only then consider prescribing an equivalent volume of high energy formula to the child’s usual intake of regular formula or breast milk (but advise to continue breastfeeding) until an assessment has been performed and recommendations made by a paediatrician or paediatric dietitian.

Review and discontinuation of treatment

- All infants on high energy formula will need growth (weight and height/length) monitored monthly to ensure catch up growth occurs.
- Paediatric dietitians or paediatricians will advise if/when the formula should be stopped.

<table>
<thead>
<tr>
<th>Formula</th>
<th>Presentation</th>
<th>Cost*</th>
<th>Cost per 100Kcal</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similac High Energy* (Abbott Nutrition)</td>
<td>60mls</td>
<td>£0.66</td>
<td>£1.09</td>
<td>100Kcal/100mls From birth up to 8kg</td>
</tr>
<tr>
<td>Infatrini* (Nutricia)</td>
<td>200mls</td>
<td>£2.13</td>
<td>£1.05</td>
<td></td>
</tr>
<tr>
<td>125mls</td>
<td>£1.46</td>
<td>£1.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA High Energy*</td>
<td>250mls</td>
<td>£2.46</td>
<td>£1.08</td>
<td>91Kcal/100mls</td>
</tr>
<tr>
<td>Infatrini Peptisorb* (Nutricia)</td>
<td>200mls</td>
<td>£3.54</td>
<td>£1.77</td>
<td>For malabsorption with or without allergy</td>
</tr>
</tbody>
</table>

*MIMS January 2017

Useful resources for parents and health professionals

- Royal college of Paediatric and Child health website for WHO growth charts and tutorial: [www.rcpch.ac.uk/growthcharts](http://www.rcpch.ac.uk/growthcharts)

**NICE** is currently working on a “Recognition and management of faltering growth in children” guideline. The expected publication is October 2017
Hampshire Infant Feeding Guidelines and Appropriate prescribing of specialist infant formulae

Flowchart for managing SECONDARY LACTOSE INTOLERANCE

Infant presenting with the following symptoms for 2 weeks or longer
- Loose and frequent (occ. green) stools
- Increased (explosive) wind
- Abdominal bloating
Usually following an infectious gastrointestinal illness

>12 months

Advise

1. Lactose free milk (available from supermarkets e.g. Lactofree whole®, Alpro Growing Up Drink®)
2. Lactose free diet (see diet sheet in appendix)

Bottle Fed

Advise (After 2 weeks of symptoms with no improvement)
Lactose free formula to be purchased from supermarket or pharmacy e.g.:
Aptamil LF®, SMA LF®
Or Enfamil O-Lac®
And a lactose free diet if weaned (see diet sheet in appendix)

Review after 2 weeks - symptoms improved?

YES

Have symptoms returned on commencement of standard infant formula/milk?

YES

Lactose intolerance confirmed
- Continue lactose free formula / milk for up to 8 weeks to allow resolution of symptoms.
- Then advise parents to slowly re-introduce standard formula/milk into the diet. (this is because lactase activity needs to be re-build after a period of exclusion)

Return to lactose free formula / milk if ≤ 12m
Refer to dietitian/seek dietetic advice if concerned

NO

NO

Breastfed

- Lactose intolerance in exclusively breast fed infants is rare.
- Consider cow’s milk protein allergy (CMPA).
- Encourage breastfeeding. Mother may benefit from referral to breastfeeding specialist, Health Visitor or breastfeeding counsellor.

Consider alternative diagnosis e.g. cow’s milk protein allergy.

0 - 12 months

>12 months

Advise

NOTE: Lactose intolerance in young infants is rare. Cow’s milk protein allergy (CMPA) should always be considered as an alternative diagnosis.

Final and Hampshire wide approved version - February 2017
Secondary Lactose Intolerance additional notes

Primary lactose intolerance is very rare and does not usually present until later childhood/adulthood.

Secondary lactose intolerance does not involve the immune system. It is caused by damaged to the gut which results in an insufficient production of the enzyme lactase. Restored gut function will resolve secondary lactose intolerance.

Resolution of symptoms within 48 hours of withdrawal of lactose from the diet confirms diagnosis*. *The medical tests ('hydrogen breath test' and tests for 'reducing sugars' in the stools) would be expected to be positive. However they are also positive in most normal breastfed babies under 3 months. Their use in diagnosing lactose intolerance in young babies is therefore open to question.

Common myths about lactose intolerance

- There is no relationship between lactose intolerance in adult family members, including in the mother, and in babies. Lactose intolerance may develop around 6 years of age if there is a strong family history.
- Breastmilk contains lactose (as does any mammalian milks) and decreasing dairy intake in maternal diet does not alter the amount of lactose in breastmilk.
- A baby with symptoms of lactose intolerance should not necessarily be taken off the breast and fed on special lactose-free infant formula (especially if the child is under 6 months old).
- Lactose intolerance does not cause vomiting or GORD.

Treatment

- Secondary lactose intolerance is temporary, as long as the gut damage can heal. When the cause of the damage to the gut is removed, the gut will heal, even if the baby is still fed breastmilk, or their usual formula.
- Continuing to breastfeed (or their usual formula) will not cause any harm as long as the baby is otherwise well and growing normally.
- Lactase drops such as ColiFan®, Care-Co Lactase infant drops® can be added (as per manufacturers’ instruction) to the baby’s feed to make digesting the lactose easier. Using lactase drops for more than a week if symptoms do not improve isn’t usually recommended.
- Lactose-free formulae have a greater potential to cause dental caries because the non-cariogenic sugar lactose is replaced with cariogenic glucose. Therefore parents must follow good dental hygiene.

Formulae

- Low lactose/lactose free formula should not be prescribed for longer than 8 weeks without review and trial of discontinuation of treatment.

<table>
<thead>
<tr>
<th>Formula</th>
<th>Description</th>
<th>Tinsize</th>
<th>Price</th>
<th>Retail price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enfamil O-Lac®</td>
<td>Lactose, sucrose and fructose free</td>
<td>400g</td>
<td>£4.98</td>
<td>£4.98</td>
</tr>
<tr>
<td>SMA LF®</td>
<td>Low lactose</td>
<td>430g</td>
<td>£5.34</td>
<td>£5.34</td>
</tr>
<tr>
<td>Aptamil LF®</td>
<td>Lactose and sucrose free</td>
<td>400g</td>
<td>£5.50</td>
<td>£5.50</td>
</tr>
<tr>
<td>SMA Wysoy®</td>
<td>Soya based formula &lt;6months</td>
<td>860g</td>
<td>£12.00</td>
<td>£12.00</td>
</tr>
</tbody>
</table>

Soya formula should not be prescribed for those under 6 months due to high phyto-oestrogen content. It can be advised in patients over 6 months who do not accept the lactose free formula suggested here.
Flowchart for managing Colic in Infants

Infant presenting with Colic (repeated episodes of excessive and inconsolable crying)
- Started in the first weeks of life
- Crying most often occurs in the late afternoon or evening
- The baby draws its knees up to its abdomen or arches its back when crying

Take history and examine
- General health of the baby including growth
- Antenatal and perinatal history
- Onset and length of crying
- Nature of the stools
- Feeding assessment
- Mother's diet if breastfeeding
- Family history of allergy
- Parent's response to the baby's crying
- Factors which lessen or worsen the crying

Consider differential diagnosis if sudden onset

Treatable causes:
- Hunger or thirst
- Too hot / too cold
- Too itchy
- Nappy rash
- Wind
  (Ensure infant is upright if bottle feeding)
- Constipation if bottle fed
- Gastro-oesophageal reflux disease
  (See GORD section)
- Cow’s milk protein allergy
  (See CMPA section)
- Transient lactose intolerance
- Parental depression or anxiety
- Rare serious causes (seizures, cerebral palsy, chromosomal abnormality)
- Mother’s diet if breastfeeding
  (anecdotal, e.g. caffeine, cabbage, garlic, spicy foods...)

Treatable causes excluded

Management:
Reassure and acknowledge (do not ignore/dismiss concerns) colic usually resolves by 4 months
Offer ongoing support and review
Advise strategies one at a time:
Holding baby through crying (although putting the baby somewhere safe is sometimes needed)
Gentle motion
White noise
Bathing in warm water
Encourage parents to look after their own health

Only consider medical treatment if parents unable to cope (see notes overleaf):
- 1 week trial of OTC simeticone drops (e.g. Infacol®, Dentinox®) OR
- 1 week trial of OTC lactase drop (e.g. Colief®, Care-Co Lactase infant drops®)

Only continue if improvement. Simeticone can be prescribed if strong rationale present but Lactase drops are not licensed for colic even if some small trials have shown some effects. Low lactose and /or lactose free formula are NOT recommended.
Colic in Infants additional notes

Although infantile colic is considered to be a self-limiting and benign condition, it is often a frustrating problem for parents and caregivers. It is a frequent source of consultation with healthcare professionals and is associated with high levels of parental stress and anxiety.

**Infantile colic** is defined for clinical purposes as repeated episodes of excessive and inconsolable crying in an infant that otherwise appears to be healthy and thriving [National Collaborating Centre for Primary Care, 2006].

Researchers use more specific definitions, often that of Wessel and colleagues: ‘paroxysms of irritability, fussing or crying lasting for a total of three hours a day and occurring on more than three days in any one week for a period of three weeks in an infant who is otherwise healthy and well-fed’ [Wessel et al, 1954].

**Estimates of prevalence** range from 5–20% of infants, depending on the definition used for colic (NICE CKS 2014).

The underlying cause of infantile colic is unknown.

- **Suggested underlying causes include:**
  - Parenting factors (for example overstimulating the baby and misinterpreting cries)
  - Gastrointestinal causes (for example gastro-oesophageal reflux and constipation)
  - Cow’s milk protein allergy
  - Transient intolerance to lactose (rare)
- Others have suggested that colic is just the extreme end of normal crying, or that it is due to the baby’s temperament (for example a baby with a sensitive temperament).

**What are the complications?**

- Infantile colic can cause significant distress and suffering to the parents.
- Stress on the parents may affect their relationships with the child.
- Breastfeeding might be stopped earlier, or weaning on to solid foods begun sooner, than would otherwise have happened.
- Infantile colic usually resolves by 3–4 months of age, and by 6 months at the latest, although it may persist for longer if it is associated with other conditions such as constipation, gastro-oesophageal reflux disease, and cow’s milk protein allergy.

**Note on simeticone and lactase drops**

- Although studies of simeticone have not provided evidence of benefit in infantile colic, a 1-week trial as a placebo may still be worth a try because simeticone is easily available, cheap, licensed for this indication and has no reported side effects.
- Lactase drop has been shown to be moderately effective but the studies are small. However, these are not licensed for prescribing for colic under ACBS rules, so advise to buy over-the-counter.

The simple act of being able to give their babies something may help parents cope better with the crying

**Useful resources for parents and health professionals**

- CRY-SIS support group: [www.cry-sis.org.uk](http://www.cry-sis.org.uk) Helpline number : 08451 228 669 (9.00-22.00 daily)
- NICE Clinical Knowledge Summary, November 2014 [cks.nice.org.uk/colic-infantile](http://cks.nice.org.uk/colic-infantile)
Appendices

Information sheets for parents / carers

1. Home milk challenge to confirm diagnosis of CMA - guidance for parents

2. Dietary advice for breastfeeding mums with babies who have a cows’ milk protein allergy

3. Introducing milk-free solids

4. Introducing lactose free solids

5. Introducing high energy solids

6. What can I do if my child won’t eat?

Documents for Health Professionals

1. Infant formula request form for Health Visitors

2. Infant Formula request form for secondary care

3. Allergy focused clinical history for Health Visitors and GPs
Home milk challenge to confirm diagnosis of Cow’s Milk Protein Allergy (CMPA)
For children with mild to moderate symptoms

It is important to try your baby with milk now. This is to make sure that any improvement in their symptoms is due to cutting out milk (and they have a cow’s milk protein allergy) rather than for any other reason.

- Do NOT start this challenge if your child has had a positive blood or skin test (Specific IgE or Skin Prick Test) to cow’s milk.
- Do NOT start this challenge if your child is unwell, e.g.
  - Has a cold or any other lung infections or breathing problems
  - Any tummy/bowel problems e.g. tummy ache or loose nappies
  - Any ‘teething’ signs that are upsetting your child
  - Eczema has flared up
- Do NOT start this challenge if your child is having any medication which may upset their tummy, e.g. antibiotics.
- Do NOT try any other new foods during this challenge.

Try to write down what your child eats and drinks during the challenge. Also note any symptoms e.g. sickness, loose nappies, rashes or any changes in their eczema.

**Home challenge for a formula fed baby** (Those taking only formula or with some breast feeds):

Follow the advice in the adjacent table: each day increase the amount of cow’s milk formula given in baby’s FIRST bottle of the day.

<table>
<thead>
<tr>
<th>Days</th>
<th>Volume of boiled water</th>
<th>Cow’s milk formula No. of scoops</th>
<th>Hypoallergenic formula No. of scoops</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>150mls</td>
<td>1 in 1st bottle of day</td>
<td>4 in 1st bottle of day</td>
</tr>
<tr>
<td>2</td>
<td>150mls</td>
<td>2 in 1st bottle of day</td>
<td>3 in 1st bottle of day</td>
</tr>
<tr>
<td>3</td>
<td>150mls</td>
<td>3 in 1st bottle of day</td>
<td>2 in 1st bottle of day</td>
</tr>
<tr>
<td>4</td>
<td>150mls</td>
<td>4 in 1st bottle of day</td>
<td>1 in 1st bottle of day</td>
</tr>
<tr>
<td>5</td>
<td>150mls</td>
<td>5 in 1st bottle of day</td>
<td>0 in 1st bottle of day</td>
</tr>
</tbody>
</table>

- If you have not seen any symptoms in your child by day 5 (when you have completely replaced one bottle a day with cow’s milk formula) you can try giving cow’s milk formula for each feed they would usually have from a bottle.

**Home challenge for a breastfed baby:**
Start eating dairy products to the same levels as before starting on the diet.

**All babies:**
- If you see any obvious symptoms e.g. sickness, tummy pains, a rash, itching, STOP the challenge. Go back to the previous formula baby was taking or to a milk free diet if you are breastfeeding, and inform your GP.
- If you do not see any symptoms within 2 weeks of your baby having more than 150mls cow’s milk formula per day, or you having resumed your normal diet containing milk, then your baby does not have a cow’s milk protein allergy.
### Dietary advice for breastfeeding mums with babies who have a cow’s milk protein allergy

This dietary advice sheet gives some general information to help you make the recommended changes to your diet and should only be followed for 4 weeks. If you have any other allergies or medical conditions, please seek further advice.

It is important for you to have a **cows’ milk free diet**. You will need to avoid cows’ milk, yoghurts, cheese and any product that contains these. Other mammal milks such as goat and sheep are not suitable alternatives as your baby is likely to react to these.

Do not worry about soya in products such as bread and sausages, but do not use soya milk, yoghurt or custard, as a replacement for cows’ milk products. This is because your baby may react to the soya as it has a very similar protein shape to cows’ milk protein. Soya can often be tried later to see if your baby reacts to it or not, but it is best not to include it for the first 4-6 weeks.

### Suitable alternatives to cows’ milk and soya milk: Calcium enriched oat milk, calcium enriched good hemp milk, calcium enriched coconut almond/hazelnut/cashew milks

<table>
<thead>
<tr>
<th>Cow’s milk protein free foods</th>
<th>Foods to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruit &amp; vegetables</strong></td>
<td></td>
</tr>
<tr>
<td>All plain fruit and vegetables</td>
<td>Vegetables mixed with sauces made from cows’ milk</td>
</tr>
<tr>
<td>Vegetables mixed with sauces made from milk alternatives</td>
<td>Fruit mixed with ordinary yoghurt, custard, cream, ice-cream or soya alternatives</td>
</tr>
<tr>
<td>Fruit mixed with oat cream, custard made from custard powder and milk alternatives</td>
<td></td>
</tr>
<tr>
<td><strong>Meat, fish, eggs &amp; pulses</strong></td>
<td></td>
</tr>
<tr>
<td>Plain meat, fish, eggs and pulses or in a sauce made with milk alternatives</td>
<td>Meat, fish, eggs and pulses in a sauce made from cows’ milk</td>
</tr>
<tr>
<td>Meats/fish in breadcrumbs, batter or pastry</td>
<td></td>
</tr>
<tr>
<td><strong>Dairy products</strong></td>
<td></td>
</tr>
<tr>
<td>Calcium enriched milk alternatives can be used in cooking as well as in cereals</td>
<td>Cows’, goats’ and sheep’s milk and all products made from these</td>
</tr>
<tr>
<td>Hard and soft cheese, such as cheese spreads, cream cheese and mozzarella</td>
<td></td>
</tr>
<tr>
<td>Ice cream, cream and ordinary yoghurts</td>
<td></td>
</tr>
<tr>
<td><strong>Starchy food and cereals</strong></td>
<td></td>
</tr>
<tr>
<td>Bread (if no milk added), Flour</td>
<td>Bread with milk in ingredients list.</td>
</tr>
<tr>
<td>Pasta in milk free sauces</td>
<td>Pasta in cows’ milk based sauces</td>
</tr>
<tr>
<td>Rice</td>
<td>Breakfast cereals which contain milk</td>
</tr>
<tr>
<td>Breakfast cereals (if no milk in ingredients) with milk alternatives</td>
<td></td>
</tr>
<tr>
<td><strong>Other foods</strong></td>
<td></td>
</tr>
<tr>
<td>Fats and oils, lard, suet, dripping</td>
<td>Normal butter, ordinary margarine or spread</td>
</tr>
<tr>
<td>Dairy-free margarine e.g. Pure™, Vitalite™, Tomor™, Flora dairy-free, supermarket own dairy-free brand, Kosher and vegan spreads</td>
<td>Biscuits and cakes that contain milk</td>
</tr>
<tr>
<td>‘Free-from’ chocolate and spread</td>
<td>Milk chocolate, most chocolate spread</td>
</tr>
</tbody>
</table>
Ingredients to watch out for on labels:

- Milk / Milk solids
- Modified milk
- Non fat milk solids
- Skimmed milk powder
- Cream
- Artificial cream
- Cheese
- Yoghurt
- Buttermilk
- Butter
- Margarine
- Ghee
- Whey/whey solids
- Hydrolysed whey protein
- Hydrolysed whey sugar
- Hydrolysed casein
- Casein (curds)
- Caseinate
- Lactose

Milk and milk products will be indicated as ‘Milk’ in bold on the ingredient list, so check the labels

Most supermarkets will provide a list of their milk-free foods on request

As a breastfeeding mum your daily calcium requirements are 1250mg. If this is not met from your diet, then you should take a calcium AND vitamin D supplement that provides 10micrograms of vitamin D and 1000mg of calcium per day

Use the following chart to check your calcium intake:

<table>
<thead>
<tr>
<th>Food</th>
<th>Average Portion</th>
<th>Calcium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative milk (calcium enriched)</td>
<td>100ml</td>
<td>120mg</td>
</tr>
<tr>
<td>Sardines</td>
<td>60g (1/2 small tin)</td>
<td>550</td>
</tr>
<tr>
<td>Pilchards</td>
<td>60g</td>
<td>300</td>
</tr>
<tr>
<td>Salmon (tinned with bones)</td>
<td>52g (1/2 tin)</td>
<td>47</td>
</tr>
<tr>
<td>Prawns</td>
<td>60g</td>
<td>90</td>
</tr>
<tr>
<td>Whitebait</td>
<td>50g</td>
<td>130</td>
</tr>
<tr>
<td>Scampi in breadcrumbs</td>
<td>90g (6 pieces)</td>
<td>130</td>
</tr>
<tr>
<td>White bread</td>
<td>100g (2 large slices)</td>
<td>100</td>
</tr>
<tr>
<td>Wholemeal bread</td>
<td>100g (2 large slices)</td>
<td>54</td>
</tr>
<tr>
<td>Calcium fortified bread</td>
<td>40g (1 slice)</td>
<td>191</td>
</tr>
<tr>
<td>Pitta bread/chapatti</td>
<td>65g (1)</td>
<td>60</td>
</tr>
<tr>
<td>Calcium fortified cereals</td>
<td>30g</td>
<td>137</td>
</tr>
<tr>
<td>Calcium fortified hot oat cereals</td>
<td>15d (1 tablespoon dry cereals)</td>
<td>200</td>
</tr>
<tr>
<td>Broccoli, boiled</td>
<td>85g (2 spears)</td>
<td>34</td>
</tr>
<tr>
<td>Spring greens</td>
<td>75g (1 serving)</td>
<td>56</td>
</tr>
<tr>
<td>Medium orange</td>
<td>120g (1 medium)</td>
<td>75</td>
</tr>
<tr>
<td>Calcium enriched orange juice</td>
<td>250mls</td>
<td>195</td>
</tr>
</tbody>
</table>

From the British Dietetic Association Food Fact Sheet on Calcium [www.bda.uk.com](http://www.bda.uk.com)

If your baby requires a cows’ milk free diet then you will need to be referred to a paediatric dietitian for advice on weaning and to ensure you are achieving a nutritionally adequate diet.
Introducing Milk-Free solids

This dietary advice sheet gives some general information to help you make the recommended changes to your baby’s diet. If you need more detailed advice or if your baby is following a special diet that makes it difficult to make these changes, please ask your doctor to refer your child to a registered dietitian.

For the first 6 months of life breastmilk or a suitable formula milk is all a baby requires.

- Breast milk is the optimal milk to feed your baby with Cow’s Milk Protein Allergy, with, if required, elimination of all cow’s milk protein foods in your diet.

Suitable milk formula substitutes for the infant with a cow’s milk intolerance include:

- A hydrolysate infant formula, which should be used as first line treatment for cow’s milk allergy, unless your baby has had a severe reaction to cow’s milk.
- A special amino acid formula, which may be recommended for babies with multiple allergy, poor weight gain or where hydrolysate formula is not accepted (this is rare).
- An infant soya formula (These should not be given before 6 months of age).

As your baby is allergic to cow’s milk, all solids offered will need to be free from cow’s milk and cow’s milk products (see table overleaf).

General advice for introducing milk-free solids

- Solid food should be introduced at around 6 months of age, when your baby show signs that he/she is ready (sitting up, holding head, reaching for food...).
- First foods can include a wide range of simple, unprocessed foods (rice, oats, barley, semolina, peas, beans lentils, meat, fish, eggs, ground nuts, fruit and vegetables).
- Babies progress at different paces. You can offer pureed or mashed foods, or offer finger foods.
- Gradually increase the amount and range of foods to include foods from the ‘allowed’ list overleaf.
- Never add sugar or salt to your baby’s food, and avoid processed foods (foods with more than a handful of ingredients on the label).
- Wheat, nuts, seeds, fish, shellfish, eggs and soya should not be introduced until 6 months of age.
- Never leave a baby unsupervised with foods.
- By 1 year of age, most infants can manage to eat chopped up family meals.

Suitable Milk substitute to use in cooking:

If your baby is having a hydrolysate, amino acid or soya formula, these can be used in cooking/on cereals.

Alternatively, soya, oat, hemp or nut milks can be used in cooking/on cereals (as long as they are calcium enriched and not used as a main drink until 1 year of age).

Please note rice milk is not recommended for babies and children under 5 years.
### Introducing Milk Free solids continued

<table>
<thead>
<tr>
<th>Milk free Foods</th>
<th>Foods to avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruit and Vegetables</strong></td>
<td></td>
</tr>
<tr>
<td>All plain vegetables and fruit – puréed, mashed and finger foods</td>
<td>Vegetables mixed with sauces made from cow’s milk</td>
</tr>
<tr>
<td>Vegetables mixed with sauces made from milk substitutes</td>
<td>Fruit mixed with ordinary yogurt/custard/cream/ice-cream</td>
</tr>
<tr>
<td>All plain fruit, puréed, mashed and finger foods</td>
<td></td>
</tr>
<tr>
<td>Fruit mixed with soya/coconut milk free yogurt, soya/coconut cream, milk free</td>
<td></td>
</tr>
<tr>
<td>desserts, custard made from custard powder and milk substitute</td>
<td></td>
</tr>
<tr>
<td><strong>Meat/fish/eggs/pulses</strong></td>
<td></td>
</tr>
<tr>
<td>Plain meat/fish/eggs/pulses or in sauce made with suitable milk substitutes</td>
<td>Meat/fish/eggs/pulses in sauces made from cow’s milk</td>
</tr>
<tr>
<td><strong>Dairy Products</strong></td>
<td></td>
</tr>
<tr>
<td>Your current infant formula (hydrolysate or soya)</td>
<td>Cow’s, goat’s and sheep’s milk and all products made from these Yoghurts</td>
</tr>
<tr>
<td>Milk free yogurts and desserts, milk free milk alternatives can be used in cooking</td>
<td>Cheese e.g. cheddar, soft cheeses, cheese spreads, cream cheese...</td>
</tr>
<tr>
<td><strong>Cereals</strong></td>
<td></td>
</tr>
<tr>
<td>Milk free Bread (no milk in ingredients list)</td>
<td>Bread with milk added</td>
</tr>
<tr>
<td>Flour</td>
<td>Pasta in cow’s milk based sauces</td>
</tr>
<tr>
<td>Pasta in milk-free sauces</td>
<td>Breakfast cereals which contain milk/ chocolate</td>
</tr>
<tr>
<td>Rice</td>
<td>Biscuits/cakes that contain milk</td>
</tr>
<tr>
<td>Breakfast cereals (no milk in ingredients list) with usual formula e.g.</td>
<td></td>
</tr>
<tr>
<td>Rice Krispies, Weetabix</td>
<td></td>
</tr>
<tr>
<td>Cornflakes, Weetabix</td>
<td></td>
</tr>
<tr>
<td>Biscuits/cakes if milk-free</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>Fats and oils, lard, suet, dripping</td>
<td>Ice-cream, cream</td>
</tr>
<tr>
<td>Milk free margarine e.g. Pure™, Vitalite™, Tomor™, Flora dairy-free, supermarket own</td>
<td>Butter, ordinary margarine</td>
</tr>
<tr>
<td>milk free brand, Kosher and vegan spreads ‘Free-from’ chocolate and spread</td>
<td>Chocolate, chocolate spread</td>
</tr>
<tr>
<td><strong>Baby Jars/Packets</strong></td>
<td></td>
</tr>
<tr>
<td>All baby jars/packets/rusks which do not have ‘milk’ in the ingredient</td>
<td>All baby jars/packets/rusks which have ‘milk’ in the ingredient list</td>
</tr>
</tbody>
</table>

**Check labels:** All milk containing products must now clearly state ‘milk’ in the ingredient panel on the label. Most supermarkets will provide a list of milk free foods.

- Most infants and children grow out of their cow’s milk intolerance, usually between the first and third years of life.
- Do not reintroduce cow’s milk in foods at home until you have discussed this with your dietitian.
- All infants who are continuing on a cow’s milk free diet should have an appointment with a dietitian to check the diet is nutritionally adequate and possible milk reintroduction. Please ask your GP or health visitor to refer you.
Introducing Lactose-free solids

This dietary advice sheet gives some general information to help you make the recommended changes to your baby’s diet. If you need more detailed advice or if your baby is following a special diet that makes it difficult to make these changes, please ask your doctor to refer your child to a registered dietitian.

Some babies temporarily do not tolerate the natural milk sugar ‘lactose’ which is found in ordinary infant formula (made from cow’s milk) and breastmilk (and also in goat’s and sheep’s milk). Lactose intolerance in infants is usually a short-term problem. It occurs most often following a bad bout of gastroenteritis (stomach bug) and can last for up to 2 - 4 months.

Lactose-free infant formulas are available such as SMA LF, Aptamil Lactose Free or Enfamil 0-Lac. These taste similar to ordinary formulas and are available from chemists to buy. It is important your baby drinks at least 600ml (20 ounces) a day of a lactose-free formula to receive sufficient nutrients, especially calcium.

General advice for introducing milk-free solids

- Solid food should be introduced at around 6 months of age, when your baby shows signs that he/she is ready (sitting up, holding head, reaching for food...).
- First foods can include a wide range of simple, unprocessed foods (rice, oats, barley, semolina, peas, beans, lentils, meat, fish, eggs, ground nuts, fruit and vegetables).
- Babies progress at different paces. You can offer pureed or mashed foods, or offer finger foods.
- Gradually increase the amount and range of foods to include foods from the ‘allowed’ list overleaf.
- Never add sugar or salt to your baby’s food, and avoid processed foods (foods with more than a handful of ingredients on the label).
- Wheat, nuts, seeds, fish, shellfish, eggs and soya should not be introduced until 6 months of age.
- Never leave a baby unsupervised with foods.
- By 1 year of age, most infants can manage to eat chopped up family meals.

Milk substitutes to be used in cooking
If your baby is having a Lactose Free formula, these can be used in cooking. Alternatively, soya, oat, hemp or nut milks can be used in cooking (as long as they are calcium enriched and not used as a main drink until 1 year of age). Please note rice milk is not recommended for babies and children under 5 years.

Lactose and cheese
Lactose is found in soft cheeses e.g. cream cheese and cheese spreads, mozzarella, feta. However, due to the maturing process of hard cheese, most of the lactose has been removed and therefore, hard cheeses such as cheddar and Edam are usually tolerated on a lactose-free diet.

Can I give other drinks?
The main drink for your baby needs to be breastmilk and/or lactose-free formula. If other drinks are needed, cooled boiled water is the best drink to give. Baby juices are not necessary and they would just encourage your baby to have a sweet tooth. If your baby is constipated, a small amount of diluted pure fruit juice may help. Tea should not be given to babies and small children as it reduces iron absorption from your child’s diet.
### Introducing Lactose-free solids continued

<table>
<thead>
<tr>
<th>Lactose free Foods</th>
<th>Foods to avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruit and Vegetables</strong></td>
<td></td>
</tr>
</tbody>
</table>
All plain vegetables and fruit – puréed, mashed and finger foods  
Vegetables mixed with sauces made from milk substitutes  
All plain fruit, puréed, mashed and finger foods  
Fruit mixed with dairy-free alternative to custard, cream |  
Vegetables mixed with sauces made from cow’s milk  
Fruit mixed with ordinary yogurt/custard/cream/ice-cream |
| **Meat/fish/eggs/pulses** |  
Plain meat/fish/eggs/pulses or in sauce made with lactose-free milk |  
Meat/fish/eggs/pulses in sauces made from cow’s milk |
| **Dairy Products** |  
Lactose-free infant formula, Dairy-free yogurts and desserts, dairy-free milk alternatives can be used in cooking  
Hard cheese e.g. Cheddar, Edam |  
Cow’s, goat’s and sheep’s milk and all products made from these Ordinary yogurts  
Soft cheese e.g. cheese spreads, cream cheese, mozzarella... |
| **Starchy Foods** |  
Bread (if no milk added)  
Flour  
Pasta in milk-free sauces  
Rice  
Breakfast cereals (if no milk in ingredients) with lactose free formula e.g. Rice Krispies, Cornflakes, Weetabix  
Biscuits/cakes if milk-free |  
Bread with milk added  
Pasta in cow’s milk based sauces  
Breakfast cereals which contain milk/ chocolate  
Biscuits/cakes that contain milk |
| **Others** |  
Fats and oils, lard, dripping  
Dairy-free margarine e.g. Pure™, Vitalite™, Tomor™, Flora dairy-free, supermarket own dairy-free brand |  
Ice-cream, cream,  
Butter, ordinary margarine  
Milk chocolate, chocolate spread |
| **Baby Jars/Packets** |  
All baby jars/packets/rusks which do not have ‘milk’ in the ingredient list |  
All baby jars/packets/rusks which Have ‘milk’ in the ingredient list |

*consistency given appropriate to age

---

**Check labels:** All milk-containing products must now clearly state ‘milk’ in the ingredient panel on the label. Most supermarkets will provide a list of milk free foods.

---

**How long does my baby need a lactose-free diet?**
Most babies grow out of lactose intolerance once their gut has recovered.  
To test this, try giving small amounts of dairy products e.g. ordinary yogurt or food made from cow’s milk.  
If your baby has loose nappies and is unsettled, stop lactose-containing foods and try again in 1 - 2 weeks.  
It will take a bit of time for your baby to regain his/her ability to digest lactose, so increase the amount gradually.  
If your child is still lactose intolerant at 1 year of age, please ask your Health Visitor/GP to refer her/him to a registered Dietitian.
Introducing high energy solids

All children need to eat a variety of foods to achieve a balanced diet that is essential for growth and good health. Some children who are not growing well or who have certain medical conditions may need extra calories and protein in their diet.

General advice
- Aim to give 3 meals and 2-3 small snacks daily. Spread the meals and snacks evenly throughout the day.
- Avoid foods labelled as ‘low fat’ or ‘diet’.
- Avoid offering drinks 1 hour before meals as they can reduce their appetite.
- Measure & record your child’s weight regularly: once every 2 months is usually recommended.
- For breastfed babies over 6 months, give them an over the counter children’s multivitamin supplement each day which includes vitamin D.

### The 5 Food Groups

<table>
<thead>
<tr>
<th>Milk, cheese, yogurt</th>
<th>Do</th>
<th>Best choices</th>
<th>Top tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give your child breast or formula milk until they are at least 1 year old.</td>
<td>Use full fat dairy products or alternatives (the fat content should be at least 4grams / 100grams)</td>
<td>Cheddar / cream cheese</td>
<td>Add to sauces, omelettes, scrambled eggs, jacket potatoes, mashed potato, vegetables, baked beans etc.</td>
</tr>
<tr>
<td>Fats &amp; Oils</td>
<td>Avoid low fats spreads</td>
<td>Butter or margarine</td>
<td>Spread generously and add to potatoes/ vegetables</td>
</tr>
<tr>
<td>Fats are the richest source of calories</td>
<td>Use an oil high in mono-unsaturated fats</td>
<td>Olive, sunflower, rapeseed or corn oil</td>
<td>Fry or roast foods with added fat</td>
</tr>
<tr>
<td>Protein rich foods</td>
<td>Aim for 2 portions daily</td>
<td>Meat and meat alternatives (quorn, soya mince etc.)</td>
<td>Add fat/cook in fat to boost their calorie value Avoid removing the fat from meat, and avoid ‘lean’ meats</td>
</tr>
<tr>
<td>Eggs, pulses (lentils, beans)</td>
<td>Salmon and mackerel</td>
<td>Choose oily fish instead of white fish, fish tinned in oil rather than brine</td>
<td></td>
</tr>
<tr>
<td>Ground almonds, peanut butter</td>
<td></td>
<td></td>
<td>Add to cereals, yoghurts &amp; desserts</td>
</tr>
<tr>
<td>Starchy foods</td>
<td>Include at least one portion at each meal</td>
<td>Cereals, breads, potatoes, pasta, rice</td>
<td>Add a generous serving of butter, cream, margarine or oil</td>
</tr>
<tr>
<td>Fruit &amp; vegetables</td>
<td>Aim to give up to 5 small portions per day. One portion is about half an adult handful or a tablespoon</td>
<td>Avocados, Dried fruit, Smoothies and fruit juices</td>
<td>Try mashed as a dip or in sandwiches Limit to one serving a day as they are high in sugar</td>
</tr>
<tr>
<td>These are low in calories but are an important source of vitamins and minerals</td>
<td>Vegetables</td>
<td>Serve with oil, butter, margarine, cream or cheese to boost the calories</td>
<td></td>
</tr>
<tr>
<td>Sugary foods such as biscuits, cakes, sweets &amp; chocolate, ice cream should be limited to after meals rather than snacks. Choose no added sugar drinks such as milk or water and avoid fizzy drinks.</td>
<td>Sugar is harmful to your child’s teeth — aim to brush their teeth twice a day and visit the dentist regularly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Meal Snack ideas</td>
<td>Small energy dense snacks can be useful to boost nutritional intake but avoid within one hour of meals, as they may reduce their appetite:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banana, Dried fruit (watch the size to avoid choking risk)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mashed avocado +mayonnaise, peanut butter or cream cheese on bread/toast (or bagel, crumpets)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese pieces</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek style Yogurt, plain or with fruit puree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What can I do if my child won’t eat?

Mealtimes are a time for learning about food and eating and should be an enjoyable experience. Eating together as a family encourages the child to copy eating and drinking behaviour. It is also a social time for families so eating together should be encouraged.

- Make sure your child is sitting in an appropriate chair and is sitting with the rest of the family.
- A calm, relaxed environment for eating and drinking may be helpful for some children, especially if they are easily distracted, however some children may benefit from background noise. Try both approaches to find out what works best for your child.
- Use brightly coloured bowls and plates. These may make the meal look more appealing.
- Try not to show your concern or make negative comments in front of your child.
- Never leave your child unsupervised whilst he or she is eating or drinking.
- Offer regular meals and snacks at set times, as this is better than letting your child ‘pick’ through the whole day.
- Avoid fluids just before and during meals, as this will reduce your child’s appetite. Often children are not hungry because they have had too much juice or milk during the day and night. Try to avoid giving more than 1½ pints of fluid during the day. Children over the age of one year should only be offered milk or water; and not be given drinks during the night.
- Give your child lots of positive praise when he or she does eat and ignore any food refusal; calmly offer the food three times before telling your child the meal is over, then remove the meal without any further comment.
- Limit mealtimes to 20 minutes. Try not to rush a meal, as your child may be slow to eat, but try not to let the meal drag on for too long. Your dietitian will advise you on how to increase the energy density of your child’s meal so the mealtime can be reduced, if necessary.
- Offer new foods in a predictable pattern, e.g. once a week for 8 weeks. Intersperse new meals with old ones. E.g. 3 new teatime/lunches and 4 tolerated teatime/lunches a week.
- Do not worry if they make a mess, this is an important part of your child’s development. If your child stops eating at a meal, try once to encourage him or her to take a little more. If this is successful show that you are pleased and give positive verbal reinforcement.
- Never use food as a reward.
- NEVER force feed your child.
- Only check your child’s weight once every 8 weeks. Most fussy eaters maintain good growth despite their apparent lack of intake.
Infant Formula – Request Form for Health Visitors

All fields must be completed – incomplete forms will be returned to the Health Visitor

<table>
<thead>
<tr>
<th>Child Details</th>
<th>Surgery details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Surgery Name</td>
</tr>
<tr>
<td>DOB</td>
<td>Phone</td>
</tr>
<tr>
<td>Address</td>
<td>Fax</td>
</tr>
<tr>
<td>NHS number</td>
<td>Email</td>
</tr>
</tbody>
</table>

Health Visitors details

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Base</td>
</tr>
</tbody>
</table>

**Assessment** (NICE recommendation CG116)

**Allergy-Focused Clinical History Completed & attached** □ Yes

**Treatment / Advice**

Refer to the Infant Formula Guidelines for more detailed information on / help with conditions

**Gastro-oesophageal Reflux (GOR) – Thickened Formulas**

**Advise parent to purchase OTC**

- *Aptamil Anti-reflux* – DO NOT PRESCRIBE
- *Cow &Gate Anti-reflux* – DO NOT PRESCRIBE
- *Carobel Instant* to add to usual formula

**Secondary Lactose intolerance** (Primary lactose intolerance is rare) up to 8 weeks

- Formula-fed / Mixed

**Advise parent to purchase OTC**

- *SMA LF* – DO NOT PRESCRIBE
- *Aptamil Lactose- Free* – DO NOT PRESCRIBE
- *Enfamil O-Lac* – DO NOT PRESCRIBE

For breastfed infants only who have severe symptoms for 2 weeks or more (very rare)

<table>
<thead>
<tr>
<th>Product</th>
<th>Pack Size</th>
<th>Cost per 100Kcal*</th>
<th>Tick</th>
<th>Qty*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA LF</td>
<td>400g tin</td>
<td>£0.43</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Enfamil O-Lac</td>
<td>450g tin</td>
<td>£0.47</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

**Cows Milk Protein Allergy – Mild-Moderate (Extensively Hydrolysed Formulae (EHF))**

<table>
<thead>
<tr>
<th>Key</th>
<th>Product</th>
<th>Pack Size</th>
<th>Cost per 100Kcal*</th>
<th>Tick</th>
<th>Qty*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Line</td>
<td><em>Similac Alimentum</em></td>
<td>400g tin</td>
<td>£0.43</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>SMA Althéra</em></td>
<td>450g tin</td>
<td>£0.47</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Milupa Aptamil Pepti 1</em></td>
<td>400g tin</td>
<td>£0.50</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Milupa Aptamil Pepti 2</em></td>
<td>400g tin</td>
<td>£0.50</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Nutramigen LGG 1</em></td>
<td>400g tin</td>
<td>£0.55</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Nutramigen LGG 2</em></td>
<td>400g tin</td>
<td>£0.57</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

*Prescribe 2 tins initially* until compliance / tolerance is established.
# Infant Formula - Request Form for Secondary Care

All fields **must** be completed – incomplete forms will be returned to the requesting clinician.

<table>
<thead>
<tr>
<th>PATIENT DETAILS</th>
<th>SURGERY DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>DOB</td>
<td>Phone</td>
</tr>
<tr>
<td>NHS number</td>
<td>Fax</td>
</tr>
</tbody>
</table>

## PAEDIATRIC DIETITIAN / PAEDIATRICIAN DETAILS
- Clinician / dietitian
- Date of consultation

## DIAGNOSIS
- Cow’s milk protein allergy
- Faltering growth
- Secondary lactose intolerance
- Pre-Term / IUGR infant
- Gastro-Oesophageal Reflux (GOR)
- Other – Specify:

Date of **next review to assess** ongoing need for infant formula

## PRESCRIPTION REQUEST DETAILS

### Treatment Goals / Duration

**Expected date of Milk Challenge if applicable**

<table>
<thead>
<tr>
<th>Key</th>
<th>Product</th>
<th>Pack Size</th>
<th>Cost / 100Kcal*</th>
<th>Tick</th>
<th>Quantity** / Direction</th>
</tr>
</thead>
</table>

- **Formulae devised for pre-term or IUGR baby post discharge from hospital**
  - **1st Line**
    - Nutriprem 2 Powder 900g tin £0.26
    - SMA Gold Prem 2 400g tin £0.24
  - **Extensively Hydrolysed Formulae (EHF) - Cow’s Milk Protein Allergy 1st line**
    - Similac Alimentum 400g tin £0.43
    - Althéra 450g tin £0.47
    - Aptamil Pepti 1 400g tin £0.50
    - Aptamil Pepti 2 400g tin £0.50
    - Nutramigen LGG Lipil 1 400g tin £0.55
    - Nutramigen LGG Lipil 2 400g tin £0.57
  - **Amino Acid Formulae – Cow’s milk Protein Allergy 2nd line unless anaphylactic reaction**
    - SMA Alfamino 400g tin £1.14
    - Nutramigen Puramino 400g tin £1.35
    - Neocate LCP 400g tin £1.51
  - **EHF with Medium Chain Triglycerides (MCT)-Indication CMPA + malabsorption**
    - Secondary care
      - Pepti-Junior 450g tin £0.55
      - Pregestimil Lipil 400g tin £0.61
  - **Lactose-free formulae - Secondary lactose intolerance (primary lactose intolerance rare)**
    - OTC Formulae must be purchased initially
      - Enfamil O-Lac 400g tin £0.24
      - SMA LF 430g tin £0.24
  - **High Energy Formulae – Faltering growth**
    - **1st Line**
      - Similac High Energy 60mls £1.09
        - 200mls £1.05
    - Infatrini 200mls £1.16
        - 125mls £1.16
    - **2nd Line**
      - SMA High Energy 250mls £1.08
    - Secondary Care
      - Infatrini Peptisorb 200mls £1.77
  - **Thickened Formula - Gastro-Oesophageal Reflux (GOR) (OTC products first-line; Aptamil Anti-reflux, Cow &Gate Anti-reflux)**
    - OTC Formulae must be purchased initially
      - Enfamil AR 400g tin £0.18
      - SMA Stay Down 900g tin £0.15
  - Other please specify with rationale:

*prices correct as of Mims Jan 2017  **Prescribe 2 tins initially until compliance / tolerance is established. Maximum of 28 days’ supply thereafter
### Allergy Focused Clinical History Form for Health Visitors and GPs

*(Adapted from NICE CG116 2011)*

#### Symptom Checklist and History

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Onset</th>
<th>Description (e.g. duration, frequency, severity)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digestive System Symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Reflux/GORD</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Blood or mucus in stools</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Feed refusal or aversion</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td><strong>Skin Symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eczema</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Urticaria / hives</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Eye, lip or facial swelling</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory Symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheezing</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Cough or Breathing problems</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Blocked or runny nose</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td><strong>Other Symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restlessness or poor sleeping</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Excessive crying</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Back arching</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Faltering growth</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

#### Feeding History

- Exclusively breast fed (until ......................)
- Mixed feeding (from ..............................)
- Exclusively Bottle Fed (from ......................)

#### Types of Milks tried:
- Cow’s milk formula: ................................
- Lactose free formula: ..............................
- Reflux formula: ......................................
- Soya formula: ...........................................
- Comfort formula: .....................................
- Other formula: ........................................

#### Name of current formula

- Started ☐ No ☐ Yes (details): ........................
- Solids? ☐ Yes ☐ No (details): ........................

#### Patient Details

- Name: ..............................................
- NHS number: ......................................
- DoB: ...................... Age: ........ Months / Weeks
- Weight (+centile): ................................
- Length (+centile): .................................
- Head Circumference (+centile): ....................
- Form completed by: .............................. Date: ..............................

*Refer directly to secondary care*  
Form last updated 01/02/2017
References

Breast feeding:
Quigley MA, Kelly YJ, A. breastfeeding and hospitalization for diarrhoeal and respiratory infection in the United Kingdom Millennium Cohort Study. Paediatrics 2007, 199: 4

Cow’s milk protein allergy:
Venter et al. Clinical and Translational Allergy 2013, 3:23 http://www.ctajournal.com/content/3/1/23
NICE Clinical Guideline 116 Food Allergy in Children and Young People. 2011 www.nice.org.uk

World Allergy Organisation DRACMA guidelines 2010 (Diagnosis and Rationale Against Cow’s Milk Allergy) http://www.worldallergy.org/publications/WAO_DRACMA_guidelines.pdf
Host A. Frequency of cow’s milk allergy in childhood. 2002; Ann Allergy Immunol;89 (suppl): 33-37.


Soya formula:

Rice milk:
Hojsak et al. Arsenic in Rice: A cause for concern, JPGN 2015, 60

Gastro-oesophageal reflux Disease:

Secondary Lactose Intolerance:

General:

National Institute for Health and Care Excellence. CG37: Postnatal care up to 8 weeks after birth, 2006
K. Grimshaw et al. The introduction of Complementary foods and the relationship to Food Allergy. Paediatrics 2013: 132(6)
A. Høst. Frequency of Cow’s Milk Allergy in Childhood. Ann All Asthma & Imm 2002: 89 (suppl 6) pp33-37

Acknowledgements

Adapted from:
Ipswich and east Suffolk Clinical Commissioning Group
Judith Harding, Prescribing Support Dietitian, NHS Essex CSU, SW Essex Medicines Management Team Implementation Arm
Changes made with thanks to:
Paediatric dietitians and Paediatricians at Hampshire Hospitals NHS Trust, Portsmouth Hospitals NHS Foundation Trust, University Hospital Southampton NHS Trust and Frimley Health NHS Trust.
Health Visitors from Southern Health NHS Trust and Solent NHS Trusts
GP prescribing leads from West Hampshire CCG, North Hampshire CCG, North East Hampshire and Farnham CCG and South East Hampshire CCGs
Medicines Management from South East Hampshire CCG
Martha Wyles, Consultant paediatrician at Hampshire Hospitals NHS Foundation Trust

Produced by Prescribing Support Dietitians Final and Hampshire wide approved version - February 2017