

# GUIDELINES ON THE APPROPRIATE USE AND PRESCRIBING OF SPECIALIST INFANT FORMULA MILK IN PRIMARY CARE

This document includes the following:

- Introduction and Background
- Guidelines on quantities to supply
- Guidelines for Prescribing, Reviewing and Stopping Formulae
- References

## **Document History:**

Version	Created by	Date	Main Changes/Comments
1	Jagdeep Minhas/Prina Sahdev	28/07/2020	Taken from Medway/Swale previous documents. The names of specialist infant formulas have been added but will need K&M wide agreement
2	Faria Magre	14/09/2020	<ul> <li>Incorporated comments from:</li> <li>KCHT, Medway Swale, DGS Community Paediatrician Dietitian teams</li> <li>KCHT medicines management teams</li> <li>Medway Community Trust Medicines team</li> <li>K&amp;M CCG Medicines Optimisation Teams</li> </ul>
3	Faria Magre	23/09/2020	To incorporate comments from meeting held on 23/09/2020
4	Faria Magre	02/11/2020	Incorporated comments from Kent Children's and Maternity Commissioning Team
5	Faria Magre	11/11/2020	Incorporated comments received from JPC
6	Faria Magre	25/11/2020	Incorporated comments received from Consultant Neonatologist at EKFT

## Colour key used in the guidelines

Prescribe as first line in Primary/Secondary Care
Prescribe if treatment unsuccessful with first line in Primary/Secondary Care
Initiated in Secondary Care

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

Breastfeeding is the healthiest way to feed a baby.

Giving formula milk to a breastfed baby will reduce breastmilk supply

REQUESTS TO PRESCRIBE A SPECIALIST FORMULA BEFORE ASSESSMENT BY A GP, NURSE, PAEDIATRIC DIETITIAN OR PAEDIATRICIAN MUST BE FOR A FIRST LINE PRODUCT EXCEPT WHERE CLINICALLY JUSTIFIED.

## INTRODUCTION

These guidelines aim to clarify which products and in which circumstances specialist infant formulae can be prescribed for babies and young children in primary care. It also acts a guide to prescribing quantities and prices. It advises on triggers for reviewing and discontinuing prescriptions and onward referral for dietetic and / or secondary care specialist advice.

Providing infant formulae inappropriately on prescription is considered inequitable prescribing as the prescription is supplied effectively at no charge but no equivalent support is available for breast feeding mothers or parents that purchase their own infant formulae from supermarkets or over the counter at pharmacies. Some patients may be eligible for supply of milk via the Healthy Start Scheme, for more information, refer to <a href="Healthy Start">Healthy Start</a>.

The majority of specialist formulae prescribed in primary care are those to treat cow's milk allergy (CMA).

## **BACKGROUND**

NICE Clinical Guideline 116 (February 2011) Food Allergy in children and young people covers the diagnosis and assessment of food allergy in children and young people in primary care and community settings. The care pathway from NICE which covers initial recognition to referral to specialist is available via NICE guidelines on food allergy

A limited range of products (food/milk substitutes) can be prescribed as drugs in line with advice from the Advisory Committee on Borderline Substances (ACBS) and these are defined in borderline substances. Any prescription written needs to be 'ACBS' approved. General Practitioners are reminded that the ACBS recommends products on the basis that they may be regarded as drugs for the management of specified conditions. Doctors should satisfy themselves that the products can safely be prescribed, that patients are adequately monitored and that, where necessary, expert hospital supervision is available. BNFc Borderline substances

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Symptoms presenting in infants with feeding difficulties are often not specific and conditions can overlap. The majority of infants presenting with restlessness, colic and crying do not have CMA. Please refer to MAP Guidelines 2019 (Appendix 1) for guidelines on symptom presentation.

CMA occurs in less than 8% of young infants, however between 5% and 15% of infants present with symptoms suggestive of CMA.

#### PRODUCT CHOICE

## **Breastfeeding Mothers:**

Kent and Medway NHS promotes breastfeeding as the best form of nutrition for infants and this should be promoted and supported wherever possible. Almost all children with CMA can continue to be successfully breastfed with modification of the mother's diet under the direction of a dietitian. Breastfeeding mothers may require a milk free diet and in this case, Calcium and Vitamin D supplementation will be required and should be purchased OTC. The approach to treatment is detailed in the MAP guideline 2019 included in Appendix 2.

## Formula Fed infants:

## **Extensively hydrolysed formula (EHF)**

EHF formula is appropriate for the majority (around 90%) of children with CMA. **DO NOT** prescribe EHF if there is a history of anaphylaxis.

Product Name	Age	Approximate Cost/Tin (September 2020)
Alimentum®/SMA Althera®	From Birth	£9.69/£9.86
Nutramigen 1 with LGG®	Under 6 Months	£11.21
Nutramigen 2 with LGG®	Over 6 Months to 2 years	£11.21
Aptamil Pepti 1®	Under 6 Months	£9.87
Aptamil Pepti 2®	Over 6 Months to 2 years	£9.41

## Amino Acid Formula (AAF)

These products are almost three times more expensive than EHF and only a small number of infants (around 10%) need to be started on AAF in primary care.

Product Name	Age	Approximate Cost/Tin (September 2020)
Elecare®	From Birth	£22.98
Nutramigen Puramino®	From Birth to 2 years	£23.00
Neocate LCP®	From Birth	£22.98
SMA Alfamino®	From Birth to 2 years	£22.98

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## Do not prescribe/initiate

- EHF or AAF products for lactose intolerance
- Flavoured products No clinical advantage
- Formula in children over the age of 1 year old unless a clinical need has been established
- Do not prescribe infant formula in children over 2 years old unless clinical need

## **SUPPLY PROCESS**

- Prescribing formulas for lactose intolerance and reflux is not allowed on prescription
- Paediatricians/dietitians will request milks on prescription if cow milk allergies are present.
- Prescribing for faltering growth should be under the care of a paediatrician to investigate the cause. Referral to paediatrician is necessary unless the GP has specialist knowledge in the area.

## **QUANTITIES OF FORMULAE TO PRESCRIBE**

The quantities below act as a guide for when any infant formula is prescribed.

To avoid waste prescribe a minimum of 2 weeks trial (approximately 3 -4 tins/week) until tolerance and compliance is established. Please note all specialist formulas have an unpleasant taste and may take several days and perseverance for an infant to accept them. Please contact local ICP dietitian if further advice is required.

Infants may require more or less than this depending upon their age, size and the rest of their diet intake.

## FOR POWDERED FORMULA:

Age Of Child	Average Total Volume Feed Per Day (Estimated)	Number Of Tins For 28 Days Complete Nutrition	Department Of Health Recommendations (Based On Average Weight For Age)
Under 6 months old	1000mLs	13 x 400g (or 450g) or 6 x900g	Exclusively formula fed based on 150mLs/kg/day of a normal concentrated formula
6 – 9 months	800mLs	8 x 400g (or 450g)	Requiring less formula with increased weaning and solid intake with support
9-12 months	600mLs	7 x 400g (or 450g) or 3 x 900g	from dietitians
Over 12 months	600mLs	7 x 400g tins (or 450g) or 3 x 900g	Requiring 600mL of milk or milk substitute per day

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## PRESCRIBING, REVIEWING AND STOPPING FORMULAE

## **Prescription Management**

- Refer to paediatric dietitian to provide support and advice to parent and especially before weaning. Please refer to Appendix 2 and 3 for guidelines on referrals. Refer to latest correspondence before issuing prescriptions.
- Ensure formula prescribing is monitored. If robust monitoring is not in place DO NOT add formula onto a repeat prescription.
- Review regularly (recommended every 6 months), check quantities, type of formula prescribed, child's age and growth.
- EHF is the appropriate choice for vast majority of infants with CMA.
- Review against specialist advice (e.g. children with higher nutritional requirements or multiple allergies may need more formula for a longer period).
- Review all existing patients if they meet one or more of the criteria below:
  - More than 2 years old
  - Prescribed formula for more than 1 year
  - Quantity prescribed is higher than recommendations

## **Audit Suggestion**

Identify and review all patients prescribed specialist infant formula. Consider switching to a preferred product, rationalising the quantities prescribed or discontinuing the prescription if no longer appropriate.

- 1. Undertake a search for all acute and repeat issues of any specialist infant formula, within the last four months.
- 2. Review the appropriateness of prescribing in line with Guidelines for the appropriate prescribing of specialist infant formula.
- 3. Communicate and carry out any necessary changes for all suitable patients, referring back to paediatric dietitian for advice, if necessary.



	Cow's Milk Allergy (CMA	.)	
Diagnosis  Suspect CMA after careful history taking. Refer to MAP Guidelines 2019 (Appendix 1) for history taking and symptoms presentation.  CMA can present as Mild to Moderate Non-IgE-mediated CMA, Severe Non-IgE-mediated CMA. Symptoms can include frequent regurgitation, gastro-oesophageal reflux, vomiting, diarrhoea, and constipation with or without perianal rash, blood in stools, eczema, distress, colic depending on type of CMA. Please refer to Appendix 1 for guidance.  Most babies presenting with colic, restlessness and/or string do not have CMA.	Breast feeding mothers should almost always be encouraged to continue to breast feed their infants. Breastfeeding mothers may require a milk free diet and Calcium and Vitamin D supplementation. The approach to treatment is detailed in the MAP guidelines (Appendix2).  For Formula Fed Infants: First Line: Trial of extensively hydrolysed formula (EHF) for a minimum 2 weeks for tolerance. It may take up to 4-6 weeks for symptoms to resolve.  These infants should be reviewed by/referred to a paediatric dietitian. Refer to Appendix 2 for guidelines on when to refer to paediatric teams.  • The taste of hydrolysed formulas is unpleasant and may take several days for an infant to accept. Younger infants take hydrolysed formulas more readily than older infants.  • Infants who do not tolerate one formula may tolerate another. Therefore it is worth prescribing only 3-4 tins/week initially (2 week trial). If not tolerated or taken after perseverance another comparable formula can be used.	Name Of Formula  First Line - Alimentum®/SMA Althera®/ Nutramigen 1 with LGG®/ Nutramigen 2 with LGG®  Second Line -Aptamil Pepti 1®/Aptamil Pepti 2®	Criteria For Prescribing Formula CONTINUE FORMULA UNTIL INFANT HAS GROWN OUT OF ALLERGY OR THEY ARE 2 YEARS OLD.  • These children should be reviewed every 6 months as paediatric allergy will often resolve.  • Refer to NICE guidelines CG 116 and MAP Guidelines 2019 for which children should be challenged with cow's milk in primary care setting.  • Children over 2 years old with multiple allergies and poor diet, refer to specialist.  • At 6 months change prescription of Nutramigen 1 with LGG® to Nutramigen 2 with LGG® unless a dietitian has advised otherwise. The same applies for Aptamil Pepti 1® and 2®.
crying do not have CMA. Advice should be sought from specialist infant feeding teams to ensure problems with feeding technique and formula reconstitution are addressed.	<ul> <li>Second Line: Amino Acid based formulae (AAF)</li> <li>Amino acid based formulae (AAF) are indicated when hydrolysed formulas do not resolve symptoms or when there is evidence of severe or multiple allergies.</li> <li>Where a specialist formula is prescribed, this should be with a care plan and a review date with the paediatric dietitian to which the repeat interval of the prescription is aligned.</li> </ul>	Elecare®/ Nutramigen Puramino® /Neocate LCP®/ SMA Alfamino®  Note: Nutramigen Puramino® is certified Halal/Kosher	



	Soya Formula can be considered in infants over 6 months. The chief medical officer advises that soya formula should not be used as the first line treatment for CMA for children under 6 months. Soya Formula should be considered in infants who will not take a first or second line formula on this list (over 6 months).	ОТС	Soya formulas can be bought at a similar cost to standard infant formula. The CCG DOES NOT support the prescribing of these formulations, parents to purchase OTC.
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NOTE: De	Secondary Lactose Intoleran mary lactose intolerance is less common than secondary intolerance and d		ater childhood or adulthood
Diagnosis	Treatment/Review Criteria	Name Of Formula	Criteria For Prescribing Formula
<ul> <li>Primary lactose intolerance is exceedingly rare in infants. Secondary lactose intolerance can present at any age and is usually reversible with treatment of the underlying cause (typically gastroenteritis). Children with lactose intolerance are not allergic to milk and should not be confused with CMA.</li> <li>Secondary Lactose intolerance usually occurs following an infectious gastrointestinal illness.</li> <li>Symptoms include: abdominal bloating, wind, increased (explosive) and loose, green stools.</li> <li>Lactose Intolerance should be suspected in infants who have had symptoms that persist for more than 2 weeks.</li> <li>Diagnosis is the resolution of symptoms, usually within 48 hours, once lactose is removed from the diet.</li> </ul>	Treatment with lactose free formula for at least 12 weeks to allow symptoms to resolve, then reintroduction to standard formula/milk products slowly into the diet.  If symptoms do not resolve on commencing standard infant formula then consider CMA.  For treating lactose intolerance in infants who have been introduced to solids, these formulas should be used in conjunction with a lactose free diet.  If an infant presents with suspected Lactose intolerance at one year or older and is on cow's milk, then a lactose free full fat cow's milk can be used for the treatment period. This is available in supermarkets.  Note: the use of Lactase drops is not common practice	OTC	The CCG DOES NOT support the prescribing of these formulations.  Parents/Carers will be required to purchase over the counter (OTC).  Lactose free infant formulas can be bought at a similar cost to standard infant formula.  The following can be purchased OTC:  • Aptamil Lactose Free®  • SMA Lactose Free®  • Enfamil-O-Lac®



Treatment/Review Criteria P ONE:	Name Of Formula	Cuitaria Fau Duagaribina Farmerila
		Criteria For Prescribing Formula
of babies have some degree of reflux.  aby is vomiting persistently (not projectile) but the baby is thriving not distressed, reassure parents and monitor.  vide advice on feeding positioning, avoidance of over feeding and vity following a feed.  PTWO:  ne bottle fed infant is not settled and not gaining weight – trial with exence formula or thickening agent such as Carobel or Infant viscon.  se formulae can be tried. However, it is important to note that the dence base to support their use is limited.	ОТС	Once vomiting resolves return to standard formula.  Not to be used for a period of more than 6 months after which a normal formula can be used.  Reflux often resolves at 6 months of age or when solids are introduced.  These products can be bought at supermarkets and are a similar price to standard formula.  The CCG DOES NOT support the prescribing of these formulations.
see formulae should not be used in conjunction with antacid dication or thickeners.  Sing a thickened formula, monitor for constipation and treat propriately.  See note that Carobel Thickener is only suitable for full term ants and children. Its' use is not recommended in pre term infants infants with low birth weight.  Siew after one month. If no improvement in symptoms, may need ther investigation by a Paediatrician. These infants require regular ew.  Sastfed babies with GOR may continue to be breastfed; further dance on supporting a breastfed baby with GOR is available via a lith visitor.  Sometimes and the sastfed baby with should be referred to		The following can be purchased OTC for GOR: Cow & Gate Anti-reflux® Aptamil Anti-reflux® Enfamil AR®  The following can be purchased OTC as thickening agents: SMA Anti-reflux® Enfamil Anti-reflux®
PT leke die se d	ot distressed, reassure parents and monitor. de advice on feeding positioning, avoidance of over feeding and by following a feed.  TWO: bottle fed infant is not settled and not gaining weight – trial with ened formula or thickening agent such as Carobel or Infant con. of formulae can be tried. However, it is important to note that the nace base to support their use is limited. of formulae should not be used in conjunction with antacid cation or thickeners. of a thickened formula, monitor for constipation and treat opriately. of enote that Carobel Thickener is only suitable for full term its and children. Its' use is not recommended in pre term infants ants with low birth weight.  we after one month. If no improvement in symptoms, may need be investigation by a Paediatrician. These infants require regular weight.  tfed babies with GOR may continue to be breastfed; further nace on supporting a breastfed baby with GOR is available via a nativisitor.	ot distressed, reassure parents and monitor. de advice on feeding positioning, avoidance of over feeding and try following a feed.  TWO: bottle fed infant is not settled and not gaining weight — trial with ened formula or thickening agent such as Carobel or Infant con.  If formulae can be tried. However, it is important to note that the nee base to support their use is limited. If formulae should not be used in conjunction with antacid cation or thickeners. If ga a thickened formula, monitor for constipation and treat opriately. If enote that Carobel Thickener is only suitable for full term that and children. Its' use is not recommended in pre term infants ants with low birth weight.  We after one month. If no improvement in symptoms, may need er investigation by a Paediatrician. These infants require regular w.  It fed babies with GOR may continue to be breastfed; further nee on supporting a breastfed baby with GOR is available via a no visitor.  Its with reflux suffering from faltering growth should be referred to



volumes being taken. If no improvement then referral to dietitian should be considered		
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	Pre-Term Infants – TO BE STARTED IN SECONDARY	CARE ONLY	
Diagnosis	Treatment/Review Criteria	Name Of Formula	Criteria For Prescribing Formula



These children will have had their formula commenced in hospital. It is started for bables born before 34 weeks gestation.  Any infant discharged on these formula should have their growth hospital. It is started for bables born before 34 weeks gestation.  NOTE: This formula should not be used in primary care to promote weight gain in term infants.  NOTE: This formula should not be used in primary care to promote weight gain in term infants.  NEW and a primary care to promote weight gain in term infants.  NEW and a primary care to promote weight gain in term infants.  NEW and a primary care to promote weight gain in term infants.  NEW and a primary care to promote weight gain in term infants.  NEW and a primary care to promote weight gain in term infants.  NEW and a primary care for to the paediatric death on individual clinical circumstances. Please refer to Neonatal/Paediatric team for more advice.  NEW and a primary care for the paediatric death in individual clinical circumstances. Please refer to Neonatal/Paediatric team for more advice.  Standard formula or follow on formula would be the appropriate step.  Do not prescribe liquid formulae unless clinically indicated.  Exclusively Breast Fed Infants generally exhibit a different pattern or growth. If there are concerns regarding growth, interferal to specialist breastheeding support services should be sought.  In cases where there is a clinical indication for a modified approach to responsive feeding such as preterm or small for gestational age babies, babies who have not regained their birthweight or are gaining weight isolation. All preterm babies are under care of paediatric/neonatal consultants. If there are any concerns in early discharge to community services them advice would be sought from the paediatric/neonatal consultants. If there are any concerns in early discharge to community services.	commenced in hospital. It is started for babies born before 34 weeks gestation.  NOTE: This formula should not be used in primary care to promote weight gain in term infants.  NOTE: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Note: This formula should not be used in primary care to promote weight gain in term infants.  Standard formula under consultants is identified.  If there are concerns regarding growth, infants generally exhibit a different pattern of growth. If there are concerns regarding growth, infant referral to specialist breastfeeding support services should be sought.  In cases where there is a clinical indication for a modified approach to response feeding such as preterm or small for gestational age babies, babies who have not regained their birthweight or are gaining weight slowly individual guidance is given. All preterm babies are under care of paediatric/neonatal consultants. If there are any concerns in early discharge to community services then advice would be sought.



Faltering Growth			
Diagnosis	Treatment/Review Criteria	Name Of Formula	Criteria For Prescribing Formula
Faltering growth is indicated when the weight of an	It is important to consider the reason for faltering growth	First Line -SMA High	These formulas should be used until 18
rattering browth is indicated when the weight of all	it is important to consider the reason for faitering growth	I II St LINE -SIVIA HIGH	These formulas should be used utilli 16



#### infant ·

- Falls across 1 or more weight centile spaces, if birthweight was below the 9<sup>th</sup> centile
- Falls across 2 or more weight centile spaces, if birthweight was between 9<sup>th</sup> and 91<sup>st</sup> centiles
- Falls across 3 or more weight centile spaces, if birthweight was above the 91<sup>st</sup> centile or:
- When current weight is below the 2<sup>nd</sup> centile for age, whatever the birthweight.

The height and head circumference, as well as weight, of a child needs to be measured in order to properly interpret changes in the latter. It is not possible to detect growth faltering without using appropriate growth charts.

e.g. iron deficiency anaemia, constination. GOR or a child protection issue and treat accordingly. Before commencing a high energy formula ensure parents/carers are offered food first advice on suitable high calorie foods if the infant is introduced to solids Refer any infant being commenced on a high calorie formula to the Health Visitor Infant Feeding Lead. Note: All infants on a high energy formula will need growth

(weight, head circumference and length/height) monitoring to ensure catch up growth and appropriate discontinuation of formula to minimise excessive weight gain. It is important to rule out possible disease-related/medical

causes for the faltering growth. If faltering growth detected, referral to secondary care Energy Liquid® / Similac High Energy Liquid®

months. After this time if the child is growing well, the prescription should be discontinued. The feed should be stopped at any time if weight gain is

excessive.

Second Line - Infatrini Liquid®

These formulas should be used until 18 months and / 8kg (unless under specialist request)

Note - Similac High Energy Liquid® is certified Halal/Kosher/Suitable for vegetarian diet

If on-going concerns about weight gain refer for a dietetic assessment.

Should be under the care of a paediatrician to investigate cause of faltering growth.

#### OTHER POINTS TO CONSIDER

- Infants with CMA may need Calcium supplementation.
- All infants on a specialised formula should be reviewed regularly by the dietitian and / or doctor in line with NICE guidelines CG116, and if appointments are missed, repeat prescriptions should not be given.
- From 2 years of age, children with CMA, who are eating a varied diet, can switch from a hypoallergenic formula to ready-made milks, e.g. fortified soya (if appropriate), pea, or oat milk.
- Rice milk is not recommended until at least 4 ½ years of age because of the high levels of arsenic contamination found in this milk. http://food.gov.uk/multimedia/pdfs/fsis0209arsenicinrice.pdf

should not be delayed.

- Review repeat prescription quantity at 3 month intervals and adjust according to current requirements.
- Any recommendations made by Health Visitors need to be clearly communicated to the patients GP to ensure continuity of care is maintained.

## **USEFUL CONTACTS**

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West Kent and East Kent	Elaine Greenman/Karen	elaine.greenman1@nhs.net	
	Maxwell	karen.maxwell@nhs.net	
		kcht.centralisedappointmentteam@nhs.net	
Medway & Swale (Medway)	Lorraine Paterson	medch.childrenscommunity@nhs.net	
Medway & Swale (Swale)	Sarah Blake	medch.orchards@nhs.net	
Dartford, Gravesham & Swanley	Sukhvinder Kaur	sukhvinderkaur@nhs.net	
		dgn-tr.dvhdietitians@nhs.net	

#### **REFERENCES:**

- 1. British National Formulary (BNF) for Children
- 2. Guidelines for the diagnosis and management of cow's milk protein allergy in infants. Vandenplas Y et al, Arch Dis child October 2007, 92: 902-90
- 3. National Institute of Clinical Excellence (NICE) Clinical Guidance 116, Food allergy in children and young people: Diagnosis and assessment of food allergy in children and young people in primary care and community settings, February 2011 http://publications.nice.org.uk/food-allergy-inchildren-and-voung-people-cg116
- 4. NICE Guideline [NG75], Faltering growth: recognition and management of faltering growth in children, September 2017 https://www.nice.org.uk/guidance/ng75
- 5. The Milk Allergy in Primary Care (MAP) Guideline 2019 https://gpifn.org.uk/imap/
- 6. NICE Guideline [NG1] Gastro-oesophageal reflux disease in children and young people: diagnosis and management (October 2019) https://www.nice.org.uk/guidance/ng1

Appendix 1 https://gpifn.files.wordpress.com/2019/10/imap-presentation-algorithm-1.pdf

**UK Adaptation of iMAP Guideline for Primary** Care and 'First Contact' Clinicians

Presentation of Suspected Cow's Milk Allergy (CMA) in the 1st Year of Life Having taken an Allergy-focused Clinical History and Physically Examine

\* Actively support continued breastfeeding (see

APR 2019.

over)

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Less than 2% of UK infants have CMA. There is a risk of over diagnosis of CMA if mild, transient or isolated symptoms are over-interpreted or if milk exclusion diets are not followed up by diagnostic milk reintroduction. Such situations must be avoided. There should be increased suspicion of CMA in infants with multiple, persistent, severe or treatment-resistant symptoms. iMAP primarily guides on early recognition of CMA, emphasizing the need for confirmation of the diagnosis, either by allergy testing (IgE) or exclusion then reintroduction of dietary cow's milk (non IgE). Breast milk is the ideal nutrition for infants with CMA and any decision to initiate a diagnostic elimination diet trial must include measures to ensure that breastfeeding is actively supported. Refer to accompanying leaflet for details of supporting ongoing breastfeeding in milk allergic infant. Firststepsnutrition.org is a useful information source on formula composition.

#### Mild to Moderate Non-IgE-mediated CMA

Mostly 2-72 hrs. after ingestion of Cow's Milk Protein (CMP)

Usually formula fed, at onset of formula feeding.

Rarely in exclusively breast fed infants

Usually several of these symptoms will be present. Symptoms persisting despite first line measures are more likely to be allergy related e.g. to atopic dermatitis or reflux. Visit gpifn.org.uk for advice about other infant feeding issues.

#### Gastrointestinal

Persistent Irritability - 'Colic'

Vomiting - 'Reflux' - GORD Food refusal or aversion

Diarrhoea-like stools – abnormally loose +/- more frequent

Constipation – especially soft stools, with excess straining Abdominal

discomfort, painful flatus

Blood and/or mucus in stools in otherwise well infant

#### Skin

Pruritus (itching), Erythema (flushing) Non-specific rashes Moderate persistent atopic dermatitis

The symptoms above are very common in otherwise well infants or those with other diagnoses, so clinical judgement is required. Trial exclusion diets must only be considered if history & examination strongly suggests CMA, especially in exclusively breastfed infants, where measures to support continued breastfeeding must be taken.

Cow's Milk Free Diet

Appendix 2: Recommendations for Management of C

Trial exclusion of all cow's Milk Protein from her own diet and to take daily Calcium and https://gpith.files.wordpyess.com/2019/10/imap-treatment

#### Formula fed or 'Mixed Feeding'\*

If mother unable to revert to fully breastfeeding, trial of Extensively Hydrolysed Formula - eHF

**See Management Algorithm** 

#### Severe

#### Non-IgE-mediated CMA

Mostly 2-72 hrs. after ingestion of Cow's Milk Protein (CMA)

Usually formula fed, at onset of formula feeding.

Rarely in exclusively breast fed infants

One but usually more of these **severe**, **persisting & treatment resistant** symptoms:

#### Gastrointestinal

Diarrhoea, vomiting, abdominal pain, food refusal or food aversion, significant blood and/or mucus in stools, irregular or uncomfortable stools

+/- Faltering growth

#### Skin

Severe atopic dermatitis +/- Faltering Growth

## Cow's Milk Free Diet

## Exclusively breast feeding mother\*

If symptomatic, trial exclusion of all Cow's Milk Protein from her own diet and to take daily Calcium & Vit D

## Formula fed or 'Mixed Feeding'\*

If mother unable to revert to fully breastfeeding, trial of replacement of Cow's Milk formula with Amino Acid Formula (AAF). If infant asymptomatic on breast feeding alone, do not exclude cow's milk from maternal diet.

#### Ensure:

Urgent referral to local paediatric allergy service Urgent dietetic referral

## Severe IgE CMA

#### **ANAPHYLAXIS**

Immediate reaction with severe respiratory and/or CVS signs and symptoms.

(Rarely a severe gastrointestinal presentation)

Emergency Treatment and Admission

#### Mild to Moderate IgEmediated CMA

Mostly within minutes (may be up to 2 hours) after ingestion of Cow's Milk Protein (CMP)

Mostly occurs in formula fed or at onset of mixed feeding

One or more of these symptoms: Skin – one or more usually present

Acute pruritus, erythema, urticaria, angioedema Acute 'flaring' of persisting atopic dermatitis

#### Gastrointestinal

Vomiting, diarrhoea, abdominal pain/colic

Respiratory – rarely in isolation of other symptoms

Acute rhinitis and/or conjunctivitis

#### Cow's Milk Free Diet

Support continued breast feeding where possible.
If infant symptomatic on breast feeding alone, trial exclusion of all Cow's Milk Protein from maternal diet with daily maternal Calcium & Vit D as per local guidance.
If infant asymptomatic on breast feeding alone, do not exclude cow's milk from maternal diet.

#### Formula fed or 'Mixed Feeding'\*

If mother unable to revert to fully breast feeding

1st Choice -Trial of Extensively Hydrolysed Formula – eHF
Infant soy formula may be used over 6 months of age if not
sensitised on IgE testing

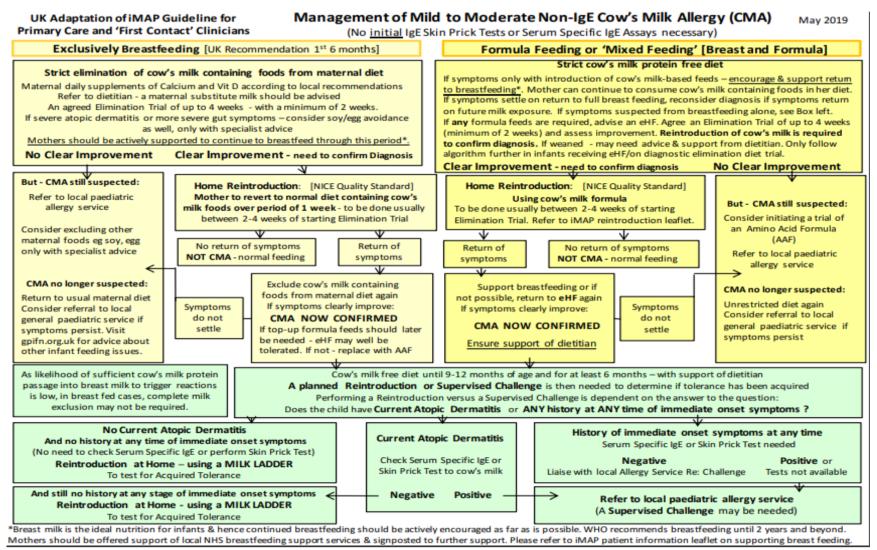
If diagnosis confirmed (by IgE testing or a Supervised Challenge in a minority of cases):

Follow-up with serial IgE testing and later Planned Challenge to test for acquired tolerance

Dietetic referral required

UK NICE Guidance - If competencies to arrange and interpret testing are not in place - early referral to local paediatric allergy service advised

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Appendix 3: Recommendations for Management of Faltering Growth, Gastro-oesophageal reflux and Suspected Lactose Intolerance



## Clinical Assessment **Faltering Growth** Faltering growth is indicated when the weight of an infant: Gastro-oesophageal Reflux (GOR) • Falls across 1 or more weight centile spaces. A diagnosis of GOR is made clinically from if birthweight was below the 9<sup>th</sup> centile a history of effortless vomiting occurring Falls across 2 or more weight centile spaces. after meals. Rule out overfeeding by if birthweight was between 9th and 91st establishing volume of feed as initial centiles treatment. • Falls across 3 or more weight centile spaces, if birthweight was above the 91<sup>st</sup> centile or: • When current weight is below the 2<sup>nd</sup> centile for age, whatever the birthweight. Provide advice on feeding positioning. avoidance of over feeding and activity Specialist Infant Feeding Teams to check feeding following a feed. techniques /adequate volumes being taken. If infants are introduced to solids then to advise high calorie intake If no improvement - try pre-thickened formulas (OTC).

Cow and Gate®/ Aptamil®/

SMA Anti reflux® or Enfamil AR®

If still no improvement - consider addition

of Carobel Thickener or Infant Gaviscon. If

still no improvement, then consider CMA

and further investigation by paediatrician.

## Suspected Secondary Lactose Intolerance

Symptoms include: abdominal bloating, wind, increased (explosive) and loose, green stools.

Try lactose free formula (OTC) SMA LF®/ Aptamil Lactose Free® or Enfamil-O-Lac®

Treatment with lactose free formula for 12 weeks to allow symptoms to resolve, then reintroduction to standard formula/milk products slowly into the diet.

Lactose free infant formulas can be bought at a similar cost to standard infant formula. Parents to purchase OTC.

If no improvement then consider CMA.

High calorie formula may be indicated. For Specialist initiation only.

If no improvement refer to Paediatric Dietitian

SMA High Energy Liquid®/Infantrini®/Similac High Energy Liquid®

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