DERBYSHIRE JOINT AREA PRESCRIBING COMMITTEE (JAPC)

GUIDANCE ON THE APPROPRIATE USE AND PRESCRIBING OF INFANT FORMULA IN PRIMARY CARE

(Including Lactose Intolerance and Cow's Milk Protein Allergy)

- The CCGs promote breastfeeding as the best form of nutrition for a good start in life for every child.

- All suspected/confirmed cases of non IgE CMPA should be referred to a paediatric dietician (via a paediatrician if necessary) for assessment and dietary advice. Infants should be given a cow's milk protein diet free for at least 6 months. Children can be re-challenged from 12 months of age onwards. Most children will outgrow their allergy by 18 months to 2 years of age.

- Within **Southern Derbyshire**, Non IgE CMPA can be managed using the GP Patient Pathway for Infants under 1 year of age with Cow's Milk Protein Allergy (Non IgE mediated).

- Within **North Derbyshire**, CMPA should be managed following the Milk Allergy in Primary Care (MAP) Guideline.

- Secondary lactose intolerance should be treated in primary care with lactose-free formula and lactose-free diet. Secondary lactose intolerance in infants usually lasts 6-8 weeks but may last as long as 3-6 months. Re-challenge after 3-6 months.

- Soya based formula should not be prescribed unless advised by a consultant paediatrician or paediatric dietician. Only children with specific rare medical conditions require a prescribed soya formula after 1 year of age.

- In premature infants, the specialised infant formula should not be prescribed beyond 6 months corrected age.

Appropriate use and prescribing of infant formula in primary care

Contents:

Document update	Date
p.10 SMA gold prem2 catch up discontinued- replaced with SMA pro gold prem2	February 2018

1. Introduction

This guideline has been developed following local concerns about the high expenditure and inequitable prescribing of infant formulae due to lack of guidance, little evidence and limited GP expertise in this area.

The guideline provides information on some common conditions requiring the use of infant formula. It also sets out circumstances in which prescribing is inappropriate and advises primary care practitioners on products available and management and policies followed in secondary care.

All suspected cases of non IgE Cow's Milk Protein Allergy (CMPA) should be referred to a paediatric dietitian to ensure appropriate assessment, diagnosis and management of the condition. Once diagnosis of CMPA is confirmed and a management plan put in place, it is recommended that GPs do not initiate changes of formula without consultation with a paediatric dietitian or consultant paediatrician. Infants with severe symptoms, demonstrating faltering growth or with a weight less than the 0.4th centile should be referred to a consultant paediatrician urgently. Frequent changes of formula are not advised in primary care due to the level of parental support required.

2. Lactose intolerance

Some GPs may feel competent to assess and treat simple cases of lactose intolerance, which will resolve before specialist input could be sought.

Primary lactose intolerance can occur later in life as we lose the ability to produce lactase. Lactose intolerance can be a congenital condition, due to absence of the lactase enzyme, but this is very rare.

Secondary lactose intolerance is the commonest form of lactose intolerance and occurs following an infectious gastrointestinal illness. Damage to the small bowel mucosa causes a temporary deficiency in lactase.

Symptoms

Abdominal bloating, increased wind and frothy, loose stools which may in turn cause perianal irritation and redness. Blood or slime in stools is **NOT** a feature of lactose intolerance.

Diagnosis

Lactose intolerance should be suspected in children who have a diarrhoeal illness lasting more than 2 weeks. Resolution of symptoms, usually within 48 hours, when lactose is removed from the diet is the gold standard for diagnosis. Children should be referred if there are any concerns about significant weight loss or if symptoms do not improve.

Treatment

Infants should be given a lactose-free formula. Secondary lactose intolerance in infants usually lasts 6-8 weeks but may last as long as 3-6 months, so parents will also need to understand how to follow a low-lactose diet. Referral to a dietitian is recommended if the low-lactose diet is to continue.

Formula available at RDH for Lactose Intolerance: SMA LF
Formula available at CRH for Lactose Intolerance: SMA LF

3. Cow's Milk Protein Allergy (CMPA)

CMPA can be classified into IgE mediated and non IgE mediated reactions. IgE mediated reactions are acute and frequently have rapid onset and non IgE mediated reactions tend to be delayed and non-acute. Symptoms of CMPA in infancy are common and include:

Table 1. Signs and symptoms of possible food allergy (NICE 2011)

IgE-mediated	**Non-IgE-mediated**
The skin	
Pruritus	Pruritus
Erythema	Erythema
Acute urticaria – localised or generalised	Atopic eczema
Acute angioedema – most commonly of the lips, face and around the eyes	
The gastrointestinal system	
Angioedema of the lips, tongue and palate	Gastro-oesophageal reflux disease
Oral pruritus	Loose or frequent stools
Nausea	Blood and/or mucus in stools
Colicky abdominal pain	Abdominal pain
Vomiting	Infantile colic
Diarrhoea	Food refusal or aversion
	Constipation
	Perianal redness
	Pallor and tiredness
	Faltering growth in conjunction with at least one or more gastrointestinal symptoms above (with or without significant atopic eczema)
The respiratory system (usually in combination with one or more of the above symptoms and signs)	
Upper respiratory tract symptoms (nasal itching, sneezing, rhinorrhoea or congestion [with or without conjunctivitis])	

Lower respiratory tract symptoms (cough, chest tightness, wheezing or shortness of breath)	
Other	
Signs or symptoms of anaphylaxis or other systemic allergic reactions	

Note: this list is not exhaustive. The absence of these symptoms does not exclude food allergy

Diagnosis of Non IgE mediated CMPA

Non IgE mediated CMPA should be suspected after careful history taking for the above symptoms and their association with the introduction of cow's milk into the diet. NICE (2011) recommend that an allergy focused clinical history should be completed if food allergy from any cause is suspected. Based on the allergy-focussed history, if non IgE mediated cow's milk allergy is suspected, cow's milk elimination should be trialled. Diagnosis of non IgE mediated CMPA may be made if symptoms resolve after 2-6 weeks on a cow's milk elimination diet.

A re-challenge may be considered by gradually reintroducing standard infant formula to make a firm diagnosis. In infants who have presented with severe or distressing symptoms, resolution of symptoms can be accepted as diagnostic. A re-challenge to confirm diagnosis should not be done in infants thought to have acute IgE mediated allergy.

Treatment of Non IgE mediated CMPA

Infants should be given a cow's milk protein-free diet for at least 6 months. This should include a hypoallergenic formula milk which will be prescribed on diagnosis and referred to a paediatric dietitian for advice on following a cow's milk-free diet. Children can be re-challenged to see if they have recovered 6 months after initiation of cow's milk exclusion or from12 months of age onwards with cow's milk protein being gradually introduced as tolerated. Most infants will be re-challenged at home and advice will be provided by the paediatric dietitian. The majority of children will grow out of their non IgE mediated milk allergy by 18 months to 2 years of age.

Referral to paediatric dietitian for Non IgE CMPA	**Process**
Within Southern Derbyshire	Infants with confirmed non IgE CMPA can be referred to the Paediatric Dietitians at Derbyshire Children's Hospital by following the GP Patient pathway for Infants under 1 year of age with Cow's milk Protein Allergy (Non IgE Mediated). See appendix 2.
Within North Derbyshire	Infants with suspected or confirmed non IgE CMPA can be referred to the paediatric dietitians at Chesterfield Royal Hospital as per MAP guidance (see appendix 3) via a written referral completed by any member of the primary healthcare team, preferably in a letter or on a Nutrition and Dietetic Service Referral Form (appendix 4).

Key point:
Infants with suspected non IgE mediated milk allergy **and** faltering growth or severe reflux or unclear presentation should be referred directly to the consultant paediatrician.

Diagnosis of IgE mediated Cow's Milk Allergy

Infants with suspected IgE mediated reactions to cow's milk should be advised to adopt a strict cow's milk free diet to manage symptoms. Formula fed infants under the age of 1 year will require a hypoallergenic infant formula to be prescribed. Unlike non-IgE CMPA, these infants should not be re-challenged with cow's milk in order to confirm their diagnosis.

In **Southern Derbyshire**, all infants with suspected IgE CMPA should be referred to the Allergy clinic at Derbyshire Children Hospital for practical advice on allergy management, interpretation of the IgE allergy tests, nutritional advice, future re-challenge advice and long term prescription requirements.

In **North Derbyshire**, all infants with suspected IgE CMPA should be referred to a consultant paediatrician and paediatric dietitian for practical advice on allergy management, interpretation of the IgE allergy tests, nutritional advice, future re-challenge advice and long term prescription requirements.

Breast fed babies

Exclusively breast fed infants can have IgE or non IgE CMPA, as some cow's milk proteins from their mother's diet pass into the breast milk. Mothers should be encouraged to continue to breast feed as there are many other benefits to be gained from this, whilst following a cow's milk free diet. Breast feeding mothers have calcium requirements of 1250mg per day and vitamin D of 10mcg per day and mothers may require supplementation depending on vitamin supplements that they may already be taking.

Breast feeding mothers should be provided the BDA Milk Allergy fact sheet for interim advice on cow's milk avoidance (https://www.bda.uk.com/foodfacts/milkallergy.pdf)

Babies should be weaned onto a cow's milk free diet with a planned controlled cow's milk protein challenge under supervision of a paediatric dietitian or consultant paediatrician at approximately 12 months of age.

Hypoallergenic Infant formulas at RDH and CRH suitable for the management of CMPA

	Treatment
Hypoallergenic Infant Formulas:	• Infants with non IgE CMPA should be treated with a hypoallergenic infant formula. Extensively hydrolysed infant formulas are the formula of choice for mild to moderate symptoms. • Hydrolysed Infant Formulas available at RDH and CRH for CMPA are: Aptamil Pepti 1 and 2 Nutramigen 1 and 2 with LGG • An amino acid infant formula is the preferred choice in severe cases with faltering growth, severe eczema, multiple food allergies, reactions to breast milk, anaphylaxis, respiratory difficulties or severe IgE mediated CMA. • Amino acid Infant Formulas available at RDH and CRH for CMPA are: Neocate LCP
Initiation of Hypoallergenic Infant formulas	• Initially prescribe 2 x 400g tin of hypoallergenic formula to ensure palatability. If formula well tolerated consider monthly prescriptions. See Table for number of tins for monthly prescriptions. • Advise the mother to try the infant with one bottle of new formula made as the manufacturer recommends. If the infant is reluctant to take new formula, try a 50:50 mix of new formula with existing formula and gradually increase new formula as taste accepted. • Warn parents that hypoallergenic formula may cause green stools.
On-going prescriptions of hypoallergenic Infant formulas	• Most infants requiring a hypoallergenic formula will continue to require the formula on a monthly repeat prescription until the age of 1 year of age. • If the infant is under the Paediatric dietitians at either CRH or Derbyshire children's hospital at RDH, the paediatric dietitian will review continued requirement for hypoallergenic formula at approximately 1year of age and update the GP accordingly. At this point a cow's milk-challenge will be considered. • If they continue to show symptoms of CMPA during the cow's milk challenge, most infants over the age of 1 year will be weaned onto a calcium-enriched plant-based milk alternative that can be purchased by parents.

4. Special Patient Groups

Secondary care will lead the prescribing of specialised formula for the following groups of patients:

- premature and low birth weight infants
- complex medical cases
- disease-specific conditions
- complex food intolerances and allergies
- faltering growth

Paediatric dietitians may not be involved in the care of premature and low birth weight infants, unless there are difficulties achieving optimal growth. Paediatric dietitians are involved in the care of all other patient groups above, where dietary requirements will be assessed and a suitable formula will be recommended on an individual patient basis. All specialist feeds should be initiated by either CRH or RDH. Once established on a suitable formula, the GP will be contacted and ongoing prescription will be requested. The letter should include details of monitoring planned and follow-up intended. The infant will continue to be seen and assessed by the paediatric dietitian until the formula is stopped and the infant is discharged.

For details of the Royal Derby & Chesterfield Royal Hospitals formularies, see appendix 5

Premature (<35 weeks gestation) and low birth-weight (<1800g) infants

Policy at Royal Derby Hospitals for premature and low birth weight infants:

Infant formula

In infants who are not breast-fed, or where supplementation to breast-feeding is required, Nutriprem 1 will be initiated by RDH. This will be continued until the infant reaches 1800g. Infants discharged on Nutriprem 1 will continue to receive supplies from Neonatal Intensive Care Unit. When the infant reaches 1800g, the formula will be switched to Nutriprem 2. Infants will receive ready-made formula in hospital. However, 900g tins of Nutriprem 2 powder are suitable for prescribing on discharge and in the community. Appropriate vitamins and iron supplements should also be prescribed, as advised by the hospital - see below. Infants might be changed to standard infant formula before 6 months if their growth is assessed as optimal. Once Nutriprem 2 is stopped, parents are advised to purchase normal formula.
N.b. Nutriprem 2 should not be prescribed beyond 6 months corrected age.

Infants who are not gaining adequate weight to maintain their centile will be referred to a paediatric dietitian for assessment and advice on appropriate formula. The dietitian might recommend a prescribable product.

RDH policy on supplementation recommends the following:

	Iron and vitamin supplementation
Breast-fed infants	1ml Sytron daily until 1 years corrected age (ie 1 year from EDD) + 14 drops (0.6mL) Abidec
Nutriprem 2 as sole source of nutrition	no supplementation required (intake approximately 130ml/kg/day to 165ml/kg/day)
Breast milk supplemented with Nutriprem 2	1ml Sytron daily until 1 years corrected age (ie 1 year from EDD) + 7 drops (0.3ml) Abidec
Normal infant formula	1ml Sytron daily until 1 year corrected age (ie 1 year from EDD) + 7 drops (0.3ml) Abidec

Details for individual patients should be provided on discharge.

Monitoring

Weights are plotted on individual UK WHO growth charts. On discharge, each family will be given written information on feeding their premature baby. A family care co-ordinator will take on the responsibility for supporting the family; advise on frequency of weighing/monitoring and ensuring the infant is gaining weight appropriately. They will liaise with the paediatric dietitian or paediatrician responsible for the infant's care if there are any concerns. They will also liaise with the health visitor and GP.

Policy at Chesterfield Royal Hospital for premature and low birth weight infants:

The Neonatal Unit at Chesterfield Royal Hospital Foundation Trust (CRHFT) follows the feeding guidelines from the North Trent Neonatal Network. The neonate unit at Derby Hospital follows feeding guidelines from the Trent Neonatal Network.

Unfortunately donor breastmilk is not available at CRHFT however mothers are encouraged to breastfeed or express breastmilk (EBM) and fortification is used when birthweight is low or growth is poor. EBM may be fortified in hospital with powdered breastmilk fortifiers. Comparable examples are:

Formula	Indication	Notes
SMA Breastmilk Fortifier	Fortification of EBM	Not available on prescription In hospital – boxes of 50 X 2g sachets
Cow and Gate Nutriprem Breastmilk Fortifier	Fortification of EBM	Not available on prescription In hospital – boxes of 50 X 2.1g sachets

For mothers who wish to continue breastfeeding or expressing, but their infant's weight gain is poor, every effort will be made to find suitable alternative methods of EBM fortification in the community.

If mothers are unable to breastfeed or express, a first stage preterm formula is used. Comparable examples are:

Formula	Indication	Notes
SMA Gold Prem Pro	Preterm or low birthweight infants	Ready to use 70ml bottles*
Cow and Gate Nutriprem 1 Low Birthweight Formula	Preterm or low birthweight infants until 1800-2000g weight achieved	Ready to use 70ml bottles*
Milupa Aptamil Preterm	Preterm or low birthweight infants	Ready to use 70ml bottles*

Upon discharge, or once the infant reaches 2000g in weight, they can be changed to a second stage preterm formula:

Formula	Indication	Notes
SMA Pro Gold Prem 2 formula	Preterm or low birthweight infants, post discharge until 6months corrected age.	400g tins of powder
Cow and Gate Nutriprem 2	Preterm or low birthweight infants, post discharge until 6months corrected age.	900g tins of powder or 200ml ready to feed cartons*

NOTE: *Liquid feeds should only be used in community when advised by the neonatal unit, e.g. for immunocompromised patients

Policy at Chesterfield Royal Hospital for premature and low birth weight infants continued:

Vitamin and Mineral Supplements for Preterm and Low Birthweight Infants:

Using the table below, commence daily nutrient supplementation as recommended.

Birth Weight	Feed	Supplements & Vitamins
> 2500g	Breastfed exclusively	Soon postnatally 0.3 ml Abidec od until 18 months of age Then from this age, all children who are not on 600ml formula require vitamin A and D supplementation until age 5 years (use Healthy Start, Abidec or Dalivit)
< 2500g (LBW)	Formula (term) Fed	0.3 ml Abidec od until 1 year of age Then from this age, all children who are not on 600ml formula require vitamin A and D supplementation until age 5 years (use Healthy Start, Abidec or Dalivit) 1ml Sytron od until 6 months corrected age commenced at 28 days of age
< 2500g (LBW)	Breastfed or Expressed Breastmilk (EBM)	0.6 ml Abidec od until 5 year of age 1ml Sytron od until 6 months corrected age commenced at 28 days of age
<1000g (ELBW)	Preterm Formula >150 ml/kg	No supplementation until on term formula (see above)

Notes:

Dalivit and Abidec: 7 drops = 0.3ml, 14 drops = 0.6ml
Dalivit contains more vitamin A and not licensed for use in children under 6 weeks, hence Abidec preferred in infancy to avoid Vitamin A toxicity
Abidec should be only avoided in cases of confirmed anaphylaxis to peanut

5. Soya-based formula

In 2004 the Chief Medical Officer issued a statement advising against the use of soya-based formula in infants with CMPA or lactose intolerance. Soya formula is no longer indicated for infants who are milk intolerant or allergic under the age of 6 months, due to its phyto-oestrogen content, and the increased risk of sensitisation to soya protein. 10 to 35% of children with CMPA are also intolerant to soya.

The use of soya formula under 6 months of age should be limited to exceptional circumstances to ensure adequate nutrition, for example, formula fed infants of vegan parents and in infants who do not tolerate hypoallergenic formulae in the absence of a soya intolerance.

Soya formula can be recommended for formula fed infants over the age of 6 months who do not tolerate hypoallergenic formula in the absence of soya intolerance (Venter et al., 2013).

Parents wishing to feed their infant on soya-based formula should be advised of the risks and instructed to buy the formula over the counter. Soya-based formula is prescribable for infants with galactosaemia only, on the advice of a consultant paediatrician.

For those infants prescribed soya formula, most should convert to supermarket-bought calcium-enriched soya or plant-based milk when they reach 1 year of age if their diet is adequate and they are growing well. Only children with specific rare medical conditions require a prescribed soya formula after this age.

6. Powders vs liquids

- Powder feeds to be used routinely
- Liquid feeds should only be used when advised by the neonatal unit, e.g. for immunocompromised patients
- Health visitors should give advice about appropriate reconstitution and sterilisation to avoid contamination. See also advice in Birth to Five (DH 2016).

7. Approximate quantities to be supplied per month

The table below gives an approximate indication of the number of tins to be supplied. This information would usually be included in the letter from the paediatric dietitian to the GP.

Age	No. of tins (using 400g tins)
0 to 3 months	6 to 11 tins
4 to 6 months	Up to 14 tins
7 to 9 months	9 to 11 tins
10 to 12 months	8 tins

8. Referral to secondary care

It is recommended that infants and children with CMPA see a dietitian for support with cow's milk free weaning.

Royal Derby Hospitals:

Infants under the age of 1 year with confirmed Non IgE mediated cow's milk allergy can be referred to the Paediatric Dietitian, Derbyshire Children's Hospital via the GP Patient pathway for Infants under 1 year of age with Cow's milk Protein Allergy (Non IgE Mediated).

Infants and children with IgE mediated cow's milk allergy can be referred to Paediatric Allergy Clinic via choose and book

All other referrals can be made to the Consultant Paediatricians, via normal referral process.

Chesterfield Royal Hospital:

Consultant Paediatrician, via normal referral process

Paediatric Dietitian: Infants with suspected or confirmed CMPA can be referred to the paediatric dietitians at Chesterfield Royal Hospital as per MAP guidance (see appendix 3) via a written referral completed by any member of the primary healthcare team, preferably in a letter or on a Nutrition and Dietetic Service Referral Form (appendix 4).

9. Definitions

Corrected age = actual age adjusted by number of weeks child was born before 40 weeks gestation (EDD).

10. Consultation

Dr D Traves and Dr L Starkey, Consultant Paediatricians, Royal Derby Hospital
Allison Mackenzie, Paediatric Dietitians, Royal Derby Hospital
Rachel Lomax and Kate Roberts, Paediatric Dietitians, Chesterfield Royal Hospital

11. References

Department of Health: CMO's Update 37 (2004). *Advice issued on soya-based infant formulas.*
Department of Health (2016). *Birth to Five.*
Guidelines for the diagnosis and management of cow's milk protein allergy in infants. *Vandenplas et al. Arch Dis Child 2007;**92**:902-908*
Food Standards Authority & Department of Health (2005). *Guidance for health professionals on safe preparation, storage and handling of powdered infant formula*.
Luyt D et al, 2014. BSACI guideline for the diagnosis and management of cow's milk allergy. *Clin Exp Allergy*; **44**: 642-672
National Institute for Health and Clinical Excellence (NICE), 2011. Diagnosis and assessment of food allergy in children and young people in primary care and community settings. NICE clinical guideline 116. www.nice.org.uk/guidance/CG116
Paediatric Group Position Statement on the use of Soya Protein for Infants. *British Dietetic Association: February 2004.*
Ventner, C. et al., 2013. Diagnosis and management of non-IgE-mediated cow's milk allergy in infancy – a UK primary care practical guide. *Clinical and Translational Allergy. 3:23*

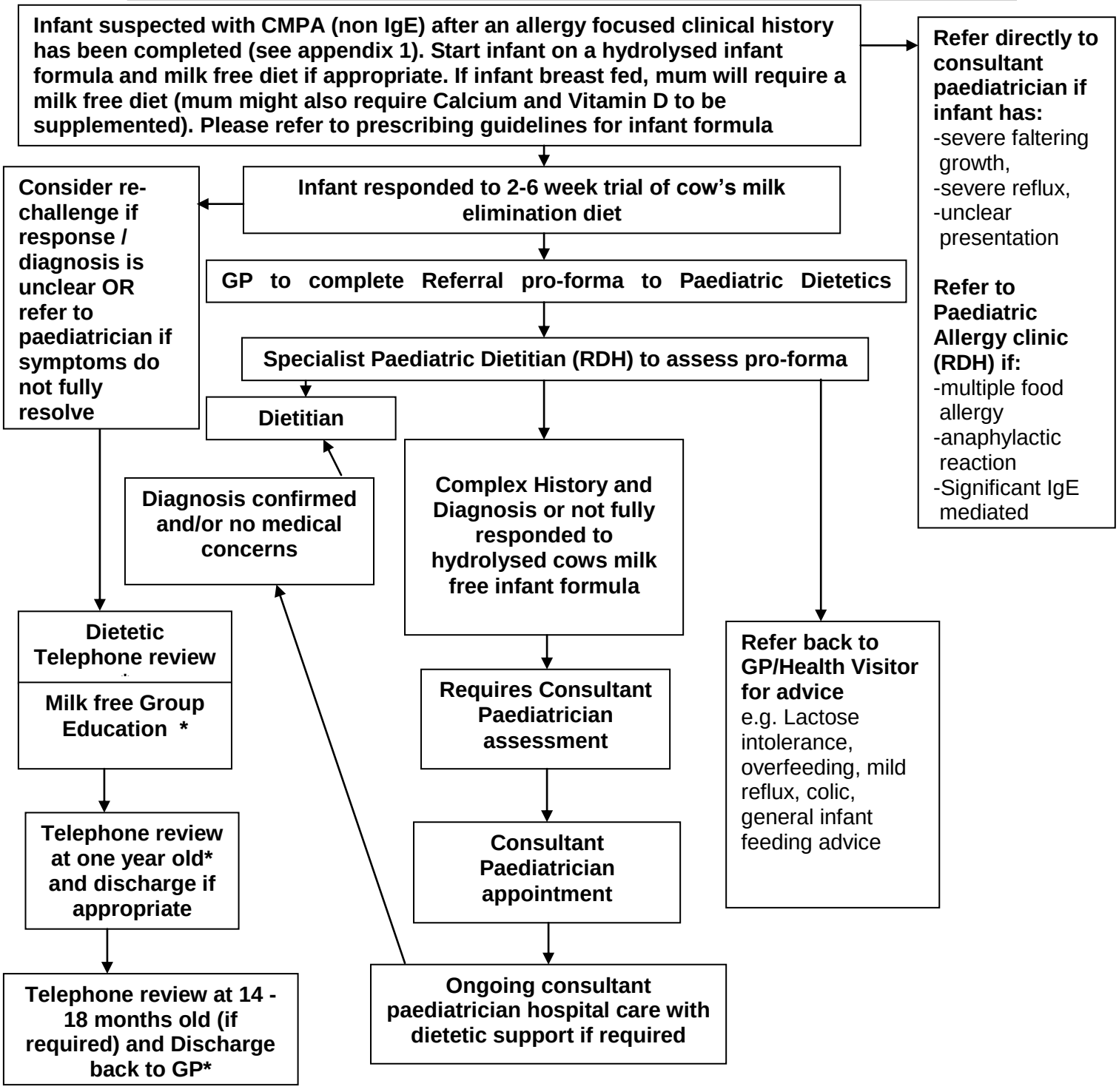
Appendix 1: Summary of Common Conditions requiring the use of infant formula in primary care

Condition	Information	Signs/symptoms	Diagnosis and Referral	Usual Treatment
Primary lactose intolerance	Doesn't usually present until later childhood or adult life due to losing the ability to produce lactase.	Abdominal bloating Increased (explosive) wind Frothy, loose stools (perianal soreness)	Lactose intolerance should be suspected in children who have had symptoms that persist for more than 2 weeks. (Infectious diarrhoea in children can persist for up to 2 weeks.) The **criterion for diagnosis** is the resolution of symptoms, usually within 48 hours, when lactose is removed from the diet. **Refer all suspected Primary Lactose Intolerance cases and any cases of Secondary Lactose Intolerance where there is significant weight loss or no improvement after withdrawal of lactose.**	Lactose-free formula Advice on dailry-free diet Re-challenge in 3-6 months
Secondary lactose intolerance	More common than primary lactose intolerance and occurs following an infectious gastrointestinal illness. Lactose intolerance can also co-exist with other conditions that damage the small bowel mucosa, like coeliac disease.			
Cow's milk protein allergy	Standard infant formula milks are made from cow's milk. Symptoms of cow's milk protein allergy in infancy are common (estimated incidence: 5 - 15% of infants). **Breast fed babies** Exclusively breast fed infants can have CMPA, due to proteins passing through the breast milk. . Exclusive breast feeding for at least 4 months may be protective, as far fewer infants in this group will go on to get CMA.	• Frequent regurgitation, gastro-oesophageal reflux • Vomiting • Diarrhoea • Constipation (with / without perianal rash) • Blood in stool • Iron deficiency anaemia • Atopic dermatitis • Urticaria unrelated to acute infections, drug intake or other causes. • Runny nose, chronic cough or wheezing unrelated to infection • Persistent distress or colic (wailing/irritable for > 3 hrs per day) at least 3 days per week over > 3 weeks	Suspect after careful history taking of symptoms and their association with the introduction of cow's milk into the diet. **The criteria for the diagnosis of Cow's Milk Protein Allergy is the resolution of symptoms after 2- 6 weeks on a cow's milk protein elimination diet, with re-occurrence of symptoms on re-exposure.** In practice, for most patients, a re-challenge is not done to confirm the diagnosis if there has been a clear resolution of symptoms. Children can be re-challenged to see if they've recovered from 9-12 months of age onwards. Most children will grow out of their intolerance by 18mths to 2 years of age. In practice many children are informally challenged at home. Successful informal challenges do not need to be repeated in hospital. Infants presenting with immediate hypersensitivity symptoms ie. Urticaria, angio-oedema, acute flare of atopic dermatitis and vomiting are more likely to have IgE mediated CMPI. In these infants, cow's milk protein challenges should be done under specialist supervision. **Refer all cases of Cow's Milk Allergy. Within Southern Derbyshire, infants with Non IgE milk allergy can be managed using the GP Patient Pathway for Infants under 1 year of age with Cow's milk protein allergy (Non IgE mediated). Infants with suspected or confirmed non IgE CMPA can be referred to the paediatric dietitians at Chesterfield Royal Hospital as per MAP guidance.. It is recommended that infants and children with cow's milk allergy see a paediatric dietitian for support with milk free weaning/diet.**	CMP-free specialist formula Advice on CMP-free diet Re-challenge after at least 6 months as advised by consultant/paediatric dietitian Breast fed babies - Mothers should be encouraged to continue to breast feed whilst following a cow's milk free diet with calcium and vitamin D supplementation. Babies should be weaned onto a cow's milk free diet with controlled cow's milk protein challenge as advised by consultant.

Derby Hospitals NHS
NHS Foundation Trust

GP Patient Pathway for Infants under 1 year of age with Cows Milk Protein Allergy (Non IgE Mediated)

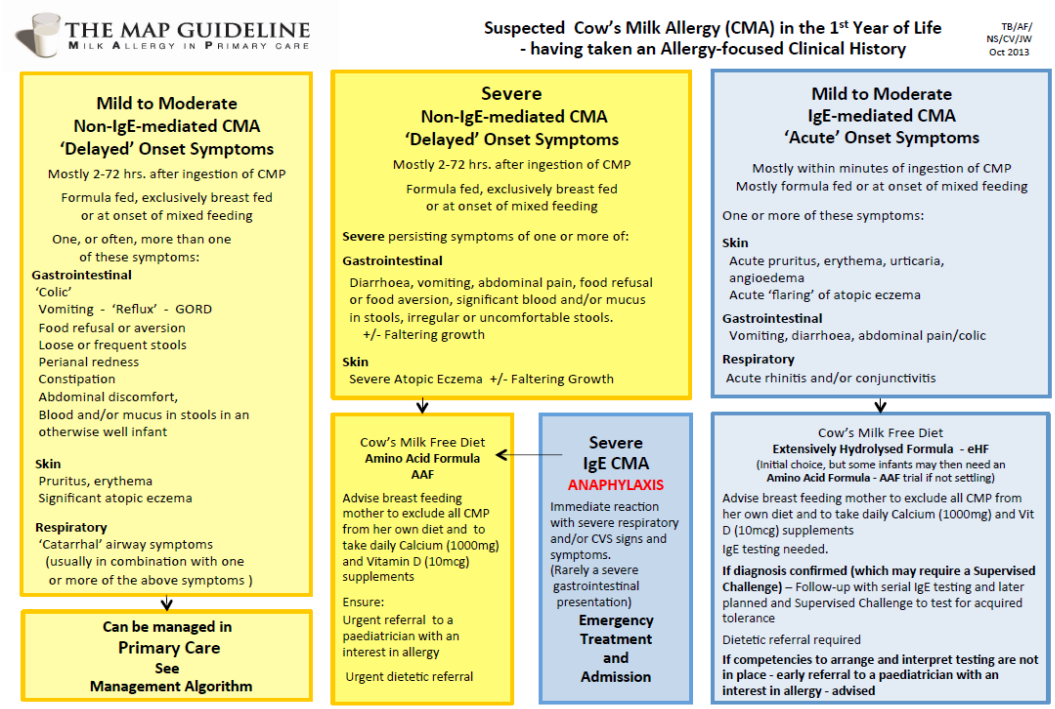
1. Note: Cows Milk Protein Allergy now includes those previously described as having *Cows Milk Protein Intolerance*

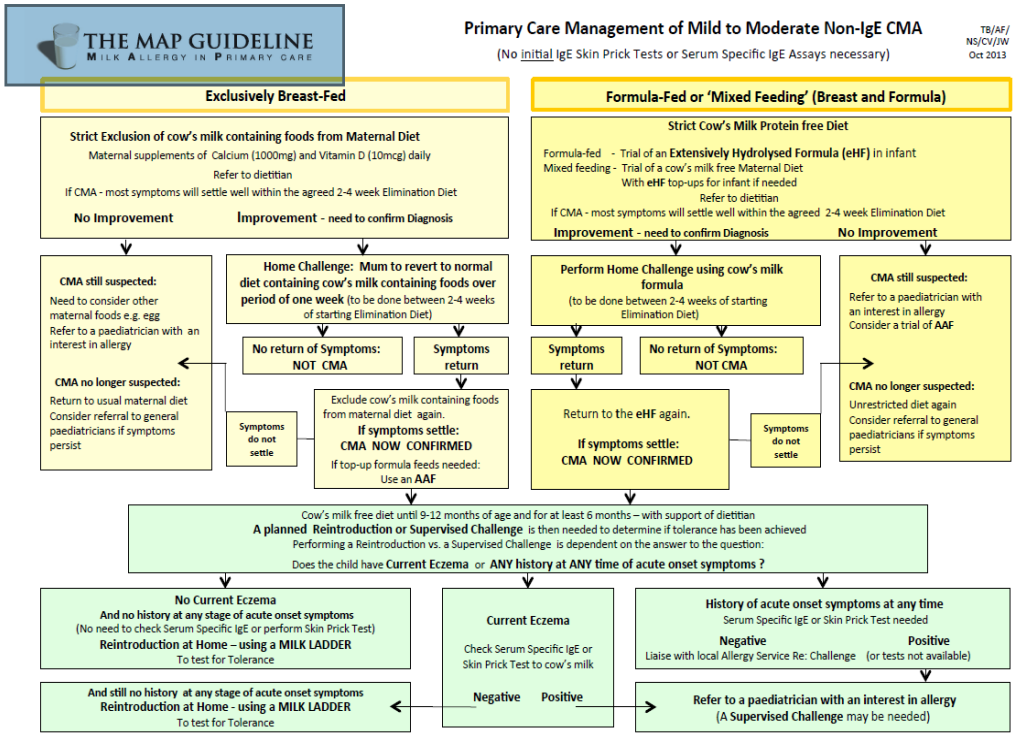


Note* Dietitian can refer back to consultant paediatrician at any point in pathway

THIS PATHWAY SHOULD BE USED IN CONJUNCTION WITH THE GUIDANCE ON THE APPROPRIATE USE AND PRESCRIBING OF INFANT FORMULA IN PRIMARY CARE

Appendix 3: Map Guidelines (Venter et al, 2013)





Appendix 4: CHESTERFIELD ROYAL HOSPITAL AND DERBYSHIRE COMMUNITY HEALTH SERVICES – NORTH DERBYSHIRE

Nutrition and Dietetic Service Referral Form

Patient Details:

Surname: Address:

Forename(s):

DOB: Postcode:

NHS No: Tel no:

Reason For Referral (Please tick reason for referral):

Nutrition Support	Type 1 Diabetes	Obesity	□	Eating Disorder *	□
Coeliac Disease	Type 2 Diabetes	IBS	□	Other Gastro *	□
Food Allergy / Intolerance *	Type 2 Diabetes on Insulin	Vitamin/ Mineral Advice *	□	Faltering Growth	□
Other *	*** Please give diagnosis/further information:**				

Diagnosis & Past Medical History:

Relevant Social History:

Details of other health professionals/family involved:

Weight: Height: BMI: MUST Score:

Unable to weigh: □ **Please state why unable to weigh:** _____

If weight and MUST score details not completed we will not be able to accept this referral for nutrition support patients

PLEASE INDICATE WHERE YOU WOULD LIKE THE PATIENT TO BE SEEN (Please circle)

Hospital / Outpatient / Care Home / Own Home (if house bound)

If patient is in hospital, please indicate which hospital and ward:

If patient is to be seen at home, please indicate additional information which may be required (e.g. house entry key code number, have family member / carer present, family contact number):

GP DETAILS Name:

Surgery:

Tel No:

CONSULTANT DETAILS: (if appropriate) Name:

Base:

REFERRERS DETAILS (Please Print)

Name - printed: Signature:

Job Title: Date:

Base: Tel No:

Appendix 5: Hospital Formulary of Specialised Infant Formulas
Products are chosen after a thorough assessment of the individual and doses are dependant on age, weight, calculated requirements, condition and intake.

Chesterfield Royal Hospital

Formula	Indication	Notes
SMA LF	Lactose intolerance	
Aptamil Pepti	CMPA	For first line use for infants who do not have acute anaphylactic reactions to cow's milk protein or failure to thrive. More palatable than amino-acid based formula.
Neocate LCP	CMPA	Amino acid-based formula indicated for severe milk protein allergy with failure to thrive, multiple food allergies or patient's who have acute anaphylactic reactions to cow's milk protein. For 2nd line use after Aptamil Pepti. Warn parents that stools will be green and more frequent.
Nutramigen 1 and 2 with LGG	CMPA	Extensively hydrolysed infant formula. Not very palatable, as made with casein hydrolysate and contains no lactose
SMA High Energy	High energy formulas for faltering growth	An energy dense formula, available in 250ml tetra packs.
Infatrini	High energy formulas for faltering growth	An energy dense formula, available in 200ml plastic bottle.

Children's Hospital at the Royal Derby Hospital

Formula	Indication	Notes
Nutramigen 1 with LGG	CMPA	Extensively hydrolysed infant formula for under 6 months, available in 400g tin
Nutramigen 2 with LGG	CMPA	Extensively hydrolysed infant formula for over 6 months, available in 400g tin
Neocate LCP	CMPA, multiple food intolerances/ food allergy	Amino based formula (elemental), available in 400g tin
SMA High Energy	Faltering growth/increased nutritional requirements	An energy dense formula, available in 250ml tetra packs.
Infatrini	High energy formula for faltering growth	An energy dense formula, available in 200ml plastic bottle.
Infatrini Peptisorb	High energy, extensively hydrolysed formula for disease related malnutrition with malabsorption and/or maldigestion	An energy dense formula, hydrolysed, available in 200ml plastic bottle.
Aptamil Pepti 1 and 2	Milk intolerances/allergy	Hydrolysed formula, available in 400g tin.