

- Cow's milk protein allergy (CMPA) (also called cow's milk allergy) is an immune mediated reaction to proteins in cow's milk. CMPA affects 2-3% of children aged 1-3 years
- There is a risk of overdiagnosis because CMPA symptoms are nonspecific and in cases of non IgE mediated CMPA the diagnosis pathway (see below) may not be completed
- Consider if any symptom(s) could be due to reflux or other functional gut disorder and not CMPA
- Optimise eczema treatment. Removing cow's milk alone from the diet of a child with non IgE mediated CMPA and eczema is unlikely to resolve eczema. Consider referral to dermatology in cases of persistent eczema
- **Consider signposting to health visitor/infant feeding service at any stage (refer to [HWE GP FAQs](#) for contact details) for infant feeding/breastfeeding support, concerns reflux may be due to overfeeding etc**
- **Consider if symptoms could be due to a more serious condition.** Immediately refer any of the following to urgent care: Intussusception, pyloric stenosis, bile-stained vomit, haematemesis, abdominal tenderness/distension, presence of mass
- **Child maltreatment can co-exist with CMPA** - refer to [HWE GP FAQs](#) for safeguarding information, and resources to help parents/carers cope with crying babies
- **Breastfeeding remains the optimal way to feed a baby with CMPA** - [Mothers should be supported to continue breastfeeding](#) wherever possible & mum wishes. **Mum will only need to exclude cow's milk from her own diet if CMPA symptoms present when exclusively breastfeeding (see page 2)**

- All children aged 6 months to 5 years (except for those having more than 500ml of any infant formula a day) should be given a purchased daily vitamin supplement containing vitamins A, C and D
- Eligible families can get free vitamin drops with the [NHS Healthy Start scheme](#)
- Breastfed infants (including mixed fed) – should be given daily vitamin D from birth (even if mother is taking vitamin D)

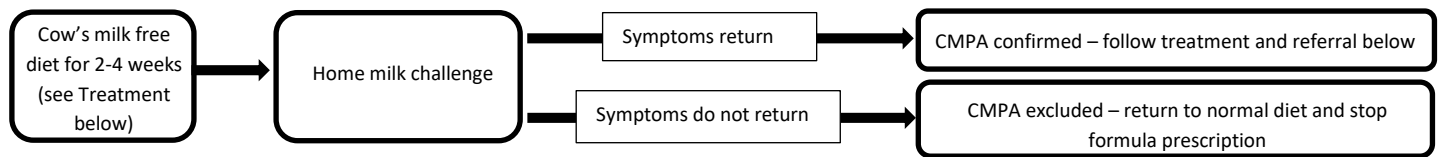
① IDENTIFY TYPE OF CMPA

Symptoms – take an [allergy focussed clinical history](#) including history of atopic disease, assessment of presenting symptoms **and response to any treatment**, feeding history and any response to previous elimination and reintroduction of foods/infant formula – refer to [iMAP Guideline](#) and [NICE CG116](#)

Non IgE mediated (delayed onset symptoms)		IgE mediated (immediate/acute onset symptoms)	
<ul style="list-style-type: none"> • Symptoms mostly within 2-72 hours of ingestion of cow's milk protein 		<ul style="list-style-type: none"> • Symptoms mostly within minutes of (but may be up to 2 hours after) ingestion of cow's milk protein 	
<p>AND Several of the following are present AND persisting despite first line treatments:</p> <p>Gastrointestinal:</p> <ul style="list-style-type: none"> • Persistent irritability/Colic • Reflux/GORD • Food refusal or aversion • Abnormally loose or frequent stools • Perianal redness • Soft stool constipation (soft stools with excess straining) • Abdominal discomfort • Blood &/or mucus in stools in an otherwise well infant <p>Skin:</p> <ul style="list-style-type: none"> • Pruritus • Erythema • Significant atopic eczema 	<p>AND one but usually more of the following is present, which are severe and persisting & often treatment resistant, with or without faltering growth:</p> <p>Gastrointestinal:</p> <ul style="list-style-type: none"> • Vomiting • Diarrhoea • Abdominal pain • Food refusal or food aversion • Significant blood &/or mucus in stools • Irregular or uncomfortable stools <p>Skin:</p> <ul style="list-style-type: none"> • Severe atopic eczema 	<p>AND one or more of the following is present:</p> <p>Skin:</p> <ul style="list-style-type: none"> • Acute pruritus • Erythema • Urticaria • Angioedema • Acute flaring of atopic eczema <p>Gastrointestinal:</p> <ul style="list-style-type: none"> • Vomiting • Diarrhoea • Abdominal pain/colic <p>Respiratory</p> <ul style="list-style-type: none"> • Acute rhinitis &/or conjunctivitis 	<p>AND ANAPHYLAXIS requiring emergency treatment and acute admission:</p> <p>Respiratory:</p> <ul style="list-style-type: none"> • Immediate reaction with severe respiratory &/or cardiovascular signs & symptoms <p>Gastrointestinal (rare):</p> <ul style="list-style-type: none"> • Severe gastrointestinal reaction
= Mild-moderate non IgE mediated		= Mild-moderate IgE mediated	
= Severe non IgE mediated		= Severe IgE mediated	

② DIAGNOSIS

Mild-moderate non IgE mediated CMPA is the most common presentation of CMPA. A [home milk challenge](#) must be carried out after a period of exclusion to confirm diagnosis (NICE quality standard). **Do not advise home milk challenge if IgE mediated allergy suspected.**



If symptoms are not resolving after 4 weeks on a cow's milk free diet reconsider CMPA diagnosis

③ TREATMENT

Type of CMPA →	Mild-moderate non IgE mediated	Mild-moderate IgE mediated	Severe non IgE mediated	Severe IgE mediated
Treatment if breastfed	<ul style="list-style-type: none">❖ If CMPA symptoms present when exclusively breastfeeding, advise mum to follow cow's milk free diet (HWE Cow's milk free diet for breastfeeding mum) + take 10ug/400IU vitamin D & 1000mg calcium (OTC) daily❖ If child has started solid foods (weaning), child should follow cow's milk free diet			
Treatment if bottle fed/ mixed fed	<p>Prescribe Extensively Hydrolysed Formula (EHF) ADVISE PARENTS/CARERS THAT PRESCRIPTION USUALLY ENDS ON 1ST BIRTHDAY</p> <p>1st Line - SMA Althera (400g) 2nd Line - Nutramigen 1 with LGG (400g) 3rd Line - Aptamil Pepti 1 (400g/800g)</p> <p>+ Advise cow's milk free diet for child if they have started solid foods</p> <p><i>Please note:</i></p> <ul style="list-style-type: none">• <i>EHF milks are tolerated by 90% of infants with CMPA</i>• <i>EHFs advised above are all suitable from birth onwards & when solids are started (weaning) from around 6 months onwards</i>			<p>Prescribe Amino Acid Formula (AAF):</p> <p>1st Line - Nutramigen Puramino (400g) 2nd Line - Neocate LCP (400g) 3rd Line - SMA Alfamino (400g)</p> <p>+ advise cow's milk free diet for child if they have started solid foods</p> <p><i>Please note:</i></p> <ul style="list-style-type: none">• <i>Prescriptions for AAFs should account for only ~10% of CMPA prescriptions</i>
More specialist formulas may be requested by allergy specialists. See HWE GP FAQs				

④ AMOUNT OF CMPA FORMULA TO PRESCRIBE

Age of Child	Approx total volume of formula per day	Initial trial amount	Monthly amount
Up to 3 months (13 wks)	420ml increasing to 1,080ml	4 x 400g tins (1,600g)	2,000g (5 x 400g) increasing to 4,800g (12 x 400g) <i>as child reaches 13 wks</i>
3-6 months (13 - 26 wks)	1,080ml reducing to 840ml	5 x 400g tins (2,000g)	4,800g (12 x 400g) reducing to 3,600g (9 x 400g) <i>as child reaches 26 wks</i>
6-12 months (26 - 52 wks)	840ml reducing to 600ml	4 x 400g tins (1,600g)	3,600g (9 x 400g) reducing to 2,800g (7 x 400g) <i>as child reaches 52 wks</i>
1-2 years (not routine)	400-600ml	Not applicable	2800g (7x400g) reducing to 2000g (5x400g)

From 1st birthday, see overleaf & [HWE CMPA Guidance for GP Practices - stopping CMPA formula at 1 year](#) to check if prescription can be stopped.

⑤ REFERRAL

Type of CMPA →	Mild-moderate non IgE mediated	Mild-moderate IgE mediated	Severe non IgE mediated	Severe IgE mediated
In Herts refer to: SWH form on DXS ENH form on Ardens	HCT Paediatric Dietitian only	HCT Paediatric Dietitian and Acute Paediatrician	HCT Paediatric Dietitian and Acute Paediatrician	URGENT: HCT Paediatric Dietitian and Acute Paediatrician
In West Essex refer to:	West Essex Community Allergy Service (HCRG) (Paediatric Dietitian)	Acute Paediatrician (will refer to in house Paediatric Dietitian)	West Essex Community Allergy Service (HCRG) (Paediatric dietitian) and Acute Paediatrician	URGENT: Acute Paediatrician (will refer to in house Paediatric Dietitian)

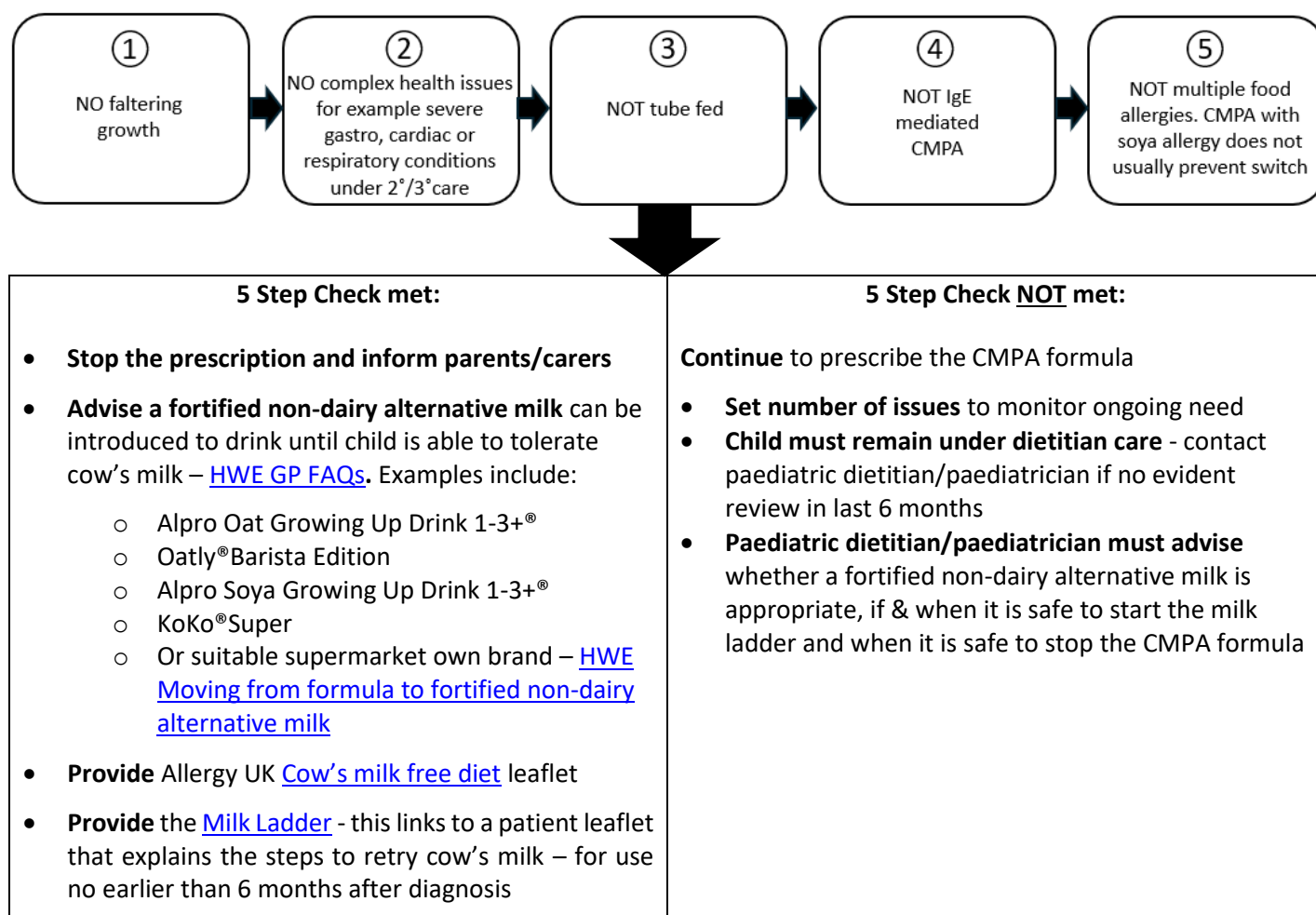
⑥ WHEN TO STOP THE CMPA FORMULA PRESCRIPTION/SWITCH TO A FORTIFIED NON DAIRY ALTERNATIVE MILK

- **If outgrown milk allergy:**

- Up to 1st birthday – stop prescribed CMPA formula. Purchased standard infant formula can be given until their 1st birthday
- After 1st birthday – stop prescribed CMPA formula. Whole cow's milk can be given as main milk drink

- **If not outgrown milk allergy after 1st birthday:**

- Where there is no faltering growth, it is usually appropriate to switch to a fortified non dairy alternative milk
- Follow the **5 Step Check** below to see if the CMPA formula can be stopped – all 5 criteria must be met



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Superseded version	1.0