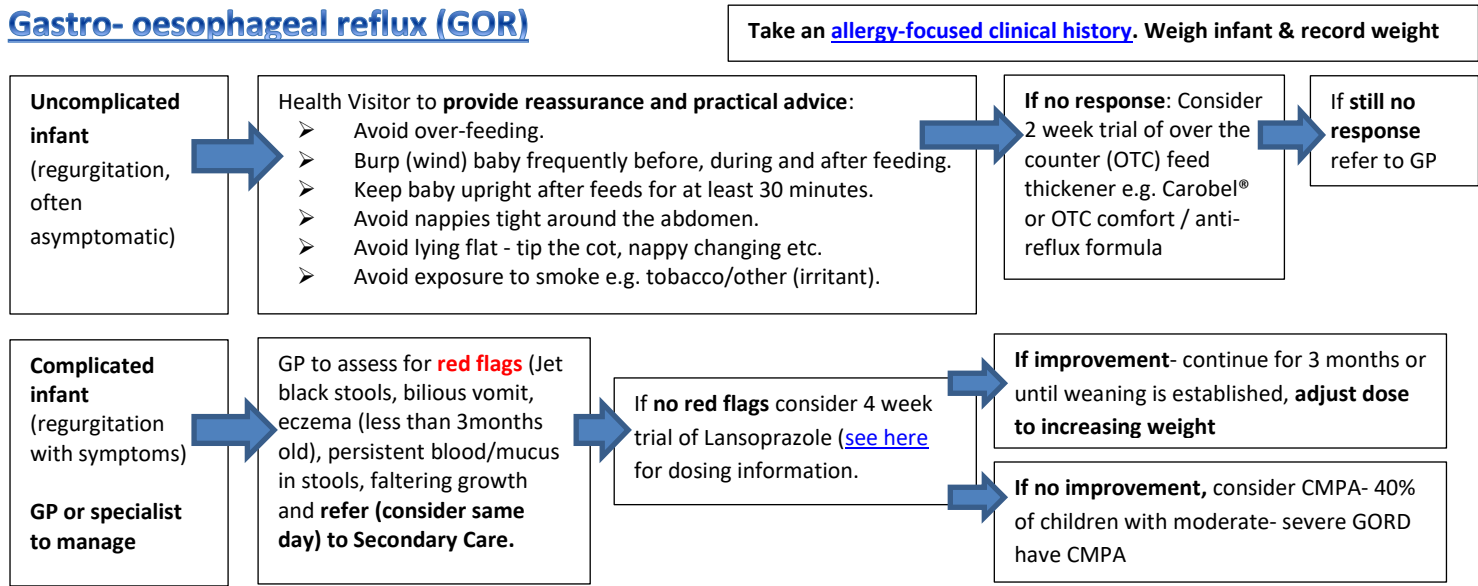


Healthcare professional guidance: Gastro- oesophageal reflux (GOR) and Cows' milk protein allergy (CMPA) in infants

Gastro- oesophageal reflux (GOR)



Cows' milk protein allergy (CMPA)

Breastfeeding is the best way to feed a baby with cows' milk protein allergy. Mothers will need to follow a [cow's milk free diet and take a calcium and vitamin D supplement](#)

- Less than 2% infants in the UK have CMA. There is a risk of over diagnosis if mild, transient or isolated symptoms are over-interpreted or if milk exclusion diets are not followed up by diagnostic milk reintroduction.
- Infants with gastrointestinal symptoms on exposure to cows' milk are more likely to have cows' milk protein allergy than lactose intolerance, except after gastrointestinal infection

1 Identify type of CMPA

Symptoms - Take an allergy-focused clinical history tailored to the presenting symptoms and age of the child, including history of atopic disease, assessment of presenting symptoms, feeding history and any response to previous elimination and reintroduction of foods (For more detailed advice see NICE CG116 and iMAP Guideline)			
<ul style="list-style-type: none"> Delayed onset: Mostly within 2 - 72 hours after ingestion of cow's milk protein 	<ul style="list-style-type: none"> Acute onset: Mostly within minutes of (but may be up to 2 hours after) ingestion of cow's milk protein 		
<p>AND usually several of the following are present:</p> <p>Gastrointestinal:</p> <ul style="list-style-type: none"> Colic Reflux/GORD Food refusal or aversion Loose or frequent stools Perianal redness Constipation 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 or more of the following is present which is severe & persisting, 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 & acute admission:</p> <p>Respiratory:</p> <ul style="list-style-type: none"> Immediate reaction with severe respiratory &/or cardiovascular system signs & symptoms <p>Gastrointestinal (rare):</p> <ul style="list-style-type: none"> Severe gastrointestinal reaction
= Mild - moderate <u>non</u> Ig E mediated	= Severe <u>non</u> Ig E mediated	= Mild - moderate Ig E mediated	= Severe Ig E mediated

Acknowledgments	Herts Valley CCG		
Developed by	West Essex CCG Medicine's Optimisation Team in partnership with Essex Child & Family Wellbeing Service (Virgin Care Community Allergy Clinic) and Princess Alexandra Hospital		
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Please note: Initial diagnosis does not have to be made by Paediatrician or Paediatric Dietitian

2 Diagnosis

- For **Mild – moderate non Ig E mediated ONLY** - exclude cows' milk for 2 – 4 weeks ([iMAP Factsheet for Parents](#)):
 - If breast fed - advise mother to follow [cows' milk free diet](#)
 - If formula fed - prescribe 2 – 4 week trial of 1st line Extensively Hydrolysed milk (Alimentum)
- If **clear improvement** in symptoms – **confirm diagnosis** by [home milk challenge](#)
 - If symptoms return, re-start mothers cows' milk free diet/1st line Extensively Hydrolysed milk
- If **clear improvement** in symptoms - **CMPA CONFIRMED** – now follow **3 Treatment and referral below**
- For **Mild – moderate Ig E mediated, Severe non Ig E mediated OR Severe Ig E mediated** symptoms
 - Follow **3 Treatment and referral below**

3 Treatment and referral based on type of CMPA

Extensively hydrolysed (EH) milks are not halal. Parents of Muslim children who require EH milks are advised to seek medical exemption from their Imam

Type of CMPA	Mild - moderate non Ig E mediated	Severe non Ig E mediated	Mild - moderate Ig E mediated	Severe Ig E mediated
Treatment if breast fed	Advise mother to follow cows' milk free diet (click here) + start calcium & vitamin D supplement & cows' milk free diet for infant if weaning has commenced			
Treatment if bottle fed/ mixed fed <i>note: EH milks (e.g. Alimentum) are tolerated by 90% of infants with CMPA, therefore AA formula milks should only account for about 10% of scripts for infants with Severe symptoms of CMPA</i>	Prescribe Extensively Hydrolysed (EH) milk Up to 2 years: <ul style="list-style-type: none"> 1st line – Alimentum (400g) 2nd line – Althera (400g) ‡ + advise cows' milk free diet for infant if weaning commenced	Prescribe Amino Acid (AA) formula milk Up to 2 years: <ul style="list-style-type: none"> 1st line – Nutramigen Puramino (400g) Or – Alfamino (400g) ‡ + advise cows' milk free diet for infant if weaning commenced	Prescribe Extensively Hydrolysed (EH) milk Up to 2 years: <ul style="list-style-type: none"> 1st line – Alimentum (400g) 2nd line – Althera (400g) ‡ + advise cows' milk free diet for infant if weaning commenced	Prescribe Amino Acid (AA) formula milk Up to 2 years: <ul style="list-style-type: none"> 1st line – Nutramigen Puramino (400g) Or – Alfamino (400g) ‡ + advise cows' milk free diet for infant if weaning commenced
	‡ - If 1 st and 2 nd line not tolerated, discuss alternative with Virgin Care Paediatric Dietitian			
+ Refer to:	Essex Child & Family Wellbeing Service (Virgin Care Community Allergy Clinic)		Refer to secondary Care	URGENT referral to secondary care

Please note: Some children with CMPA may also react to soya. **If Soya tolerated:**

- Under 6 months of age** - Soya milk should not be considered
- 6 months – 1 year of age** - If child will not take an EH milk, a soya baby milk (Wysoy) can be suggested. Parents should be advised to purchase this **OTC** as cost is identical to a standard baby milk
- At 1 – 2 years:** If still taking EH milk, advise parents to trial Alpro Growing Up Drink Soya 1-3+ (widely available). **If tolerated**, advise parents to purchase this & **stop prescribing EH milk**

4 Amount of milk to prescribe

How much powdered infant formula should I prescribe monthly?	Under 6 months	6 to 12 months	12 months to 2 years*
<i>Please note:</i> Only prescribe 1 or 2 tins initially until compliance/ tolerance is established to avoid waste	13 x 400g, 12 x 450g or 6 x 900g tins	7-13 x 400g/450g or 3-6 900g tins	7 x 400g, 6 x 450g or 3 x 900g tins

5 When to stop extensively hydrolysed or amino acid formula milk prescription

- At 2 years of age or sooner if child has grown out of allergy (i.e. able to consume cows' milk without symptoms)
- If advised to do so by Paediatric Dietitian/Paediatrician/Allergy Clinic

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