

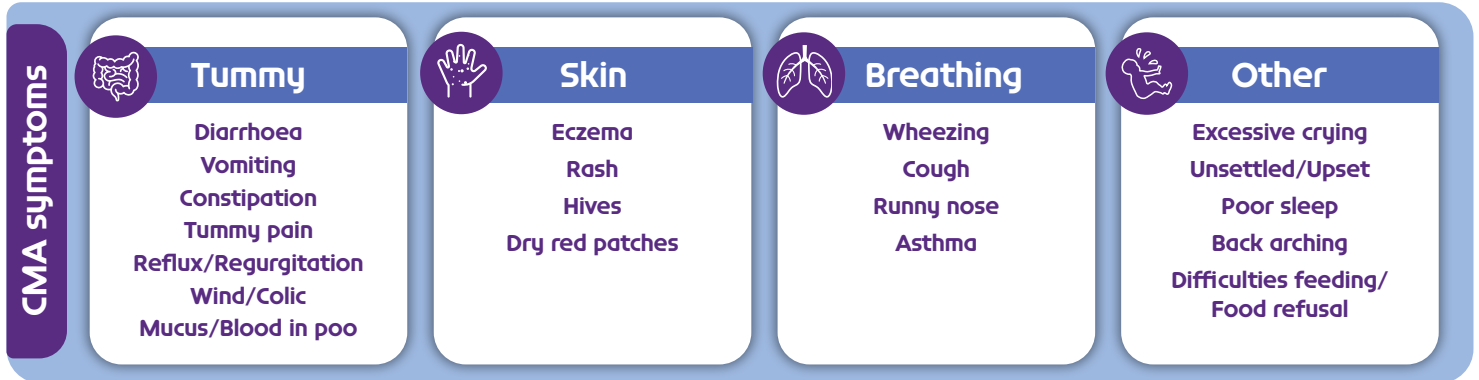
Considering cow's milk allergy?

Navigate your way to an appropriate diagnosis for your patient

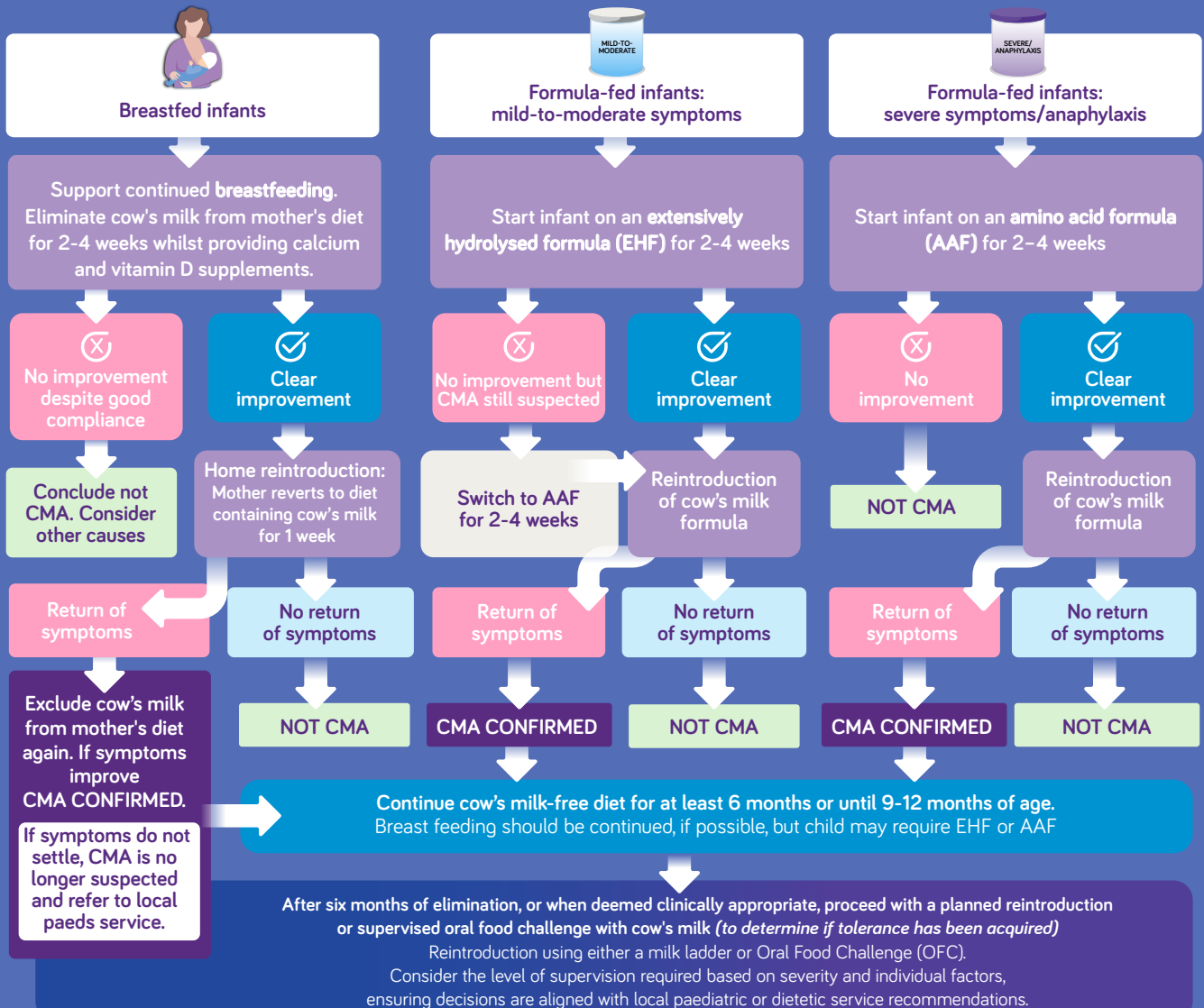
Understanding whether an infant may have cow's milk allergy (CMA) can be challenging, as many of the presenting symptoms overlap with those commonly seen during infancy.¹

Finding the correct diagnosis can take time and be distressing for the infant and their parents.² Getting it right is important to avoid potential acute reactions, poor growth, nutritional deficiencies and negative impact on the quality of life of infants and their families.¹ If you are seeing an infant with multiple symptoms affecting more than one system, that are not responding to the usual management, you may want to consider CMA.

This simple tool is designed to help highlight the key steps needed to ensure you find the appropriate diagnosis.



Algorithm based on International and European guidelines to aid in the diagnosis of CMA^{1,2}



FAQs

Clinical considerations and frequently asked questions



How long should infants be on an elimination diet?

For the diagnosis of IgE-mediated CMA, the initial elimination diet should last 1-2 weeks. For non-IgE-mediated CMA, the initial elimination diet should be around 2-4 weeks. Once diagnosis is confirmed with an Oral Food Challenge (OFC), the initial cow's milk-free diet should last 6 months or until the infant reaches 12 months of age, whichever is first.



If an **OFC is not possible or parents refuse an OFC**, how do we diagnose CMA?

It is recommended that the importance of the OFC is made very clear to parents at the start of an elimination diet, to ensure a proper diagnosis, and to avoid unnecessary dietary restrictions and their nutritional consequences. In suspected IgE-mediated CMA, the OFC should always be supported with medical supervision.



Is it possible to **differentiate blood in stool in CMA** from other bloody diarrhoea seen in infants?

One of the presentations of non-IgE-mediated CMA is food protein-induced allergic proctocolitis, the key symptom being blood in stools. Bloody diarrhoea can also be caused by different conditions, such as infections. It is important to take a detailed clinical history, especially exploring the onset of the symptoms. In CMA in general, small amounts of blood in stools can be seen along with mucus. With infections, infants will present with fever, poor feeding, irritability, or lethargy. Another possible serious condition could be intussusception. It is important to consider all options when blood is present in the stools of infants.



Which tests should be used to diagnose CMA?

Tests should only be used if the clinician has access to the expertise to interpret the results. In CMA, the only validated tests are specific IgE in blood and skin prick testing, which should only ever be used when IgE-mediated CMA is suspected. Positive tests only confirm IgE sensitisation, and not clinical allergy, so a thorough allergy-focused clinical history is also key. An elimination diet followed by an OFC is the only way to confirm both IgE and non-IgE-mediated CMA.



Based on current practice, is there a need for **strict maternal avoidance of cow's milk** in children with IgE-mediated CMA?

There are few reports of IgE-mediated reactions in infants who are exclusively breastfed. If a reaction is seen, it is more likely to be a non-IgE-mediated reaction and there may be a need for maternal avoidance. In these cases, initiate a milk elimination diet for the mother for 2-4 weeks, then proceed with reintroduction of cow's milk to the mother's diet to check if symptoms reappear. If proceeding with an elimination diet for the mother, it is essential to supplement her diet with calcium and vitamin D. Care should be given to support breastfeeding.



What is the difference between **lactose intolerance** and CMA?

CMA is an immune-mediated disease where the body mounts an inappropriate immune response to the protein found in cow's milk, whereas lactose intolerance does not involve the immune system and occurs where there is a deficiency in the enzyme lactase, which breaks down lactose. Lactose intolerance is extremely rare in infants. Breastmilk is best for all infants, including those with CMA, and its main carbohydrate source is lactose. It is possible that secondary lactose intolerance may coexist in infants who have CMA. These are the patients who have enteropathy with diarrhoea and possibly a transient lactase deficiency; once the cow's milk allergy is appropriately managed, the associated lactose intolerance usually resolves.



Can any of the following formulas be used in the diagnosis and management of CMA; **lactose free formula, goat or sheep milk, or partially hydrolysed formula**?

Lactose free formulas still contain cow's milk proteins like standard infant formulas and so are not suitable for CMA. If a child cannot be breastfed, it is important to eliminate the cow's milk protein rather than lactose. Goat and sheep milk are not recommended for CMA because the proteins are very similar to those found in cow's milk and there is a high risk of cross-reactivity. Partially hydrolysed formulas are not hypoallergenic and are not appropriate in the context of managing CMA.