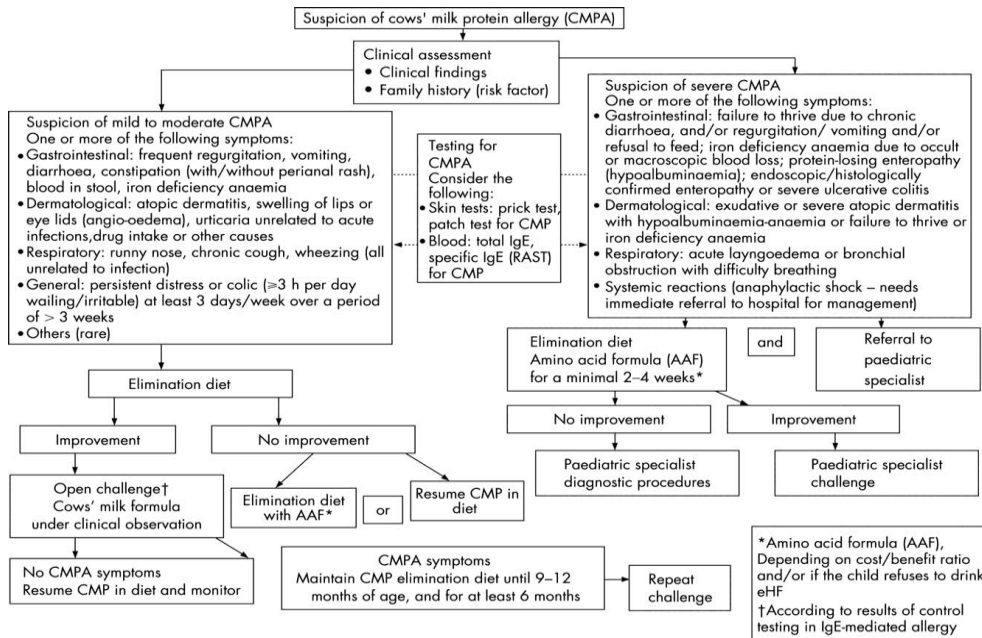


**Figure (1): Algorithm for the diagnosis and management of cow's milk protein allergy (CMPA) in exclusively breast-fed infants. eHF, extensively hydrolysed formula.**



**Figure (2) Algorithm for the diagnosis and management of cow's milk protein allergy (CMPA) in formula-fed infants.**



# المركز العلمي

## بمستشفى الاطفال الجامعي

### ” تنمية وتثقيف “

رئيس قسم طب الاطفال ومدير مستشفى الاطفال  
أ.د/ عماد حماد الدالي

مدير المركز  
د/ ادريس حسن زكي

## 4<sup>th</sup> Concised Scientific Letters (CSL)

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### **Cow milk allergy**

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#### **\* Overview:**

Milk allergy is an abnormal response by the body's immune system to milk and products containing milk. It's one of the most common food allergies in children. Cow's milk is the usual cause of milk allergy, but milk from sheep, goats, buffalo and other mammals also can cause a reaction.

Avoiding milk and milk products is the primary treatment for milk allergy. Fortunately, most children outgrow milk allergy. Those who don't outgrow it may need to continue to avoid milk products.

**\* Symptoms:**

Milk allergy symptoms, which differ from person to person, occur a few minutes to a few hours after milk or eats milk products.

**\* Symptoms in infants with immediate-onset reactions to cow's milk**

<p><b>Cutaneous</b></p> <ul style="list-style-type: none"> <li>● Pruritus without skin lesions</li> <li>● Urticaria</li> <li>● Angio-oedema</li> <li>● Atopic eczema exacerbation</li> </ul>
<p><b>Gastrointestinal</b></p> <ul style="list-style-type: none"> <li>● Vomiting</li> <li>● Diarrhoea</li> <li>● Bloody stools</li> <li>● Gastro-oesophageal reflux</li> <li>● Abdominal pain</li> </ul>
<p><b>Respiratory</b></p> <p><b>A. Upper respiratory</b></p> <ul style="list-style-type: none"> <li>● Rhinitis</li> <li>● Nasal congestion</li> </ul> <p><b>B. Lower respiratory</b></p> <ul style="list-style-type: none"> <li>● Wheeze</li> <li>● Cough</li> <li>● Stridor</li> <li>● Difficulty breathing</li> </ul>
<p><b>Cardiovascular</b></p> <ul style="list-style-type: none"> <li>● Hypotension/shock</li> <li>● Prostration</li> </ul>
<p><b>General</b></p> <ul style="list-style-type: none"> <li>● Anaphylaxis</li> <li>● Irritability</li> <li>● Failure to thrive</li> </ul>

**\* Common gastrointestinal symptoms in cow's milk allergy (Delayed onset)**

Vomiting/possetting
Irritability (colic)
Dysphagia
Diarrhea
Constipation

**\*Some symptoms and signs related to CMPA**

	Infants and toddlers	Older children	Immediate reaction (within min-2 h after ingesting CMP)
Digestive	Dysphagia Frequent regurgitation Colic, abdominal pain Vomiting Anorexia, refusal to feed Diarrhea_intestinal protein or blood loss Constipation_perianal rash Failure to thrive Occult blood loss Iron-deficiency anemia	Dysphagia Food impaction Regurgitation Dyspepsia Nausea, vomiting Anorexia, early satiety Diarrhea_intestinal protein or blood loss Constipation Abdominal pain Occult blood loss Iron-deficiency anemia	Vomiting
Respiratory	Runny nose Wheezing Chronic coughing (all unrelated to infections)	Runny nose Wheezing Chronic coughing (all unrelated to infections)	Wheezing or stridor Breathing difficulties
Skin	Urticaria (unrelated to infections, drug intake, or other causes) Atopic eczema Angioedema (swelling of lips or eyelids)	Urticaria (unrelated to infections, drug intake, or other causes) Atopic eczema Angioedema (swelling of lips or eyelids)	Urticaria Angioedema
General	Anaphylaxis Shock-like symptoms with severe metatobolic acidosis, vomiting, and diarrhea (FPIES)	Anaphylaxis	Anaphylaxis FPIES