

Summary Flow Chart For Diagnosis Of Cma***

Immediate Onset¹

Which are typically IgE mediated

Occurs mostly within minutes (may be up to 2 hours) after ingestion of Cow's Milk Protein (CMP), mostly occurs in formula fed infants or at onset of mixed feeding²

Signs & Symptoms²:

One or more of these symptoms:
Gastrointestinal
Vomiting, diarrhoea, abdominal pain/colic
Skin – one or more usually present
Acute pruritus,
erythema,
urticaria,
angioedema
Acute 'flaring' of persisting atopic dermatitis
Respiratory – rarely in isolation of other symptoms
Acute rhinitis and/or conjunctivitis

Delayed Onset¹

Which are typically non-IgE mediated

Occurs mostly 2-72 hrs. after ingestion of Cow's Milk Protein (CMP), usually formula fed infants, at onset of formula feeding and rarely in exclusively breast-fed infants.²

Signs & Symptoms²:

Mild to Moderate:
Usually several of these symptoms will be present.

Gastrointestinal
Persistent Irritability - 'Colic'
Vomiting - 'Reflux' - GORD
Food refusal or aversion
Diarrhoea-like stools – abnormally loose +/- more frequent
Constipation – especially soft stools, with excess straining
Abdominal discomfort, painful flatus
Blood and/or mucus in stools in otherwise well infant

Skin
Pruritus (itching), Erythema (flushing)
Non-specific rashes
Moderate persistent atopic dermatitis

Severe:
One but usually more of these severe, persisting & treatment resistant symptoms:

Gastrointestinal
Diarrhoea, vomiting, abdominal pain, food refusal or food aversion, significant blood and/or mucus in stools, irregular or uncomfortable stools
+/- Faltering growth
Skin
Severe atopic dermatitis +/- Faltering Growth

Diagnosis ^{2,3}

Allergy-focused clinical history and physical examination³

Refer to secondary care for further investigations (skin prick and/ or specific IgE antibody blood test)³

Trial elimination - Cow's Milk Free Diet²:

- Breast-Fed: trial elimination of CMP from maternal diet*
- Mixed or non-breast-fed infants: Mild to moderate eHF trial.

Severe symptoms - AAF trial

Support continued breast feeding where possible.

Diagnosis ^{2,3}

Allergy-focused clinical history and physical examination³

Trial elimination - Cow's Milk Free Diet for up to 4 weeks (minimum 2 weeks)²:

- Breast-Fed: trial elimination of CMP from maternal diet*
- Mixed or non-breast-fed infants: Mild to Moderate symptoms - eHF trial.

Severe symptoms - AAF trial and refer to local paediatric allergy service & dietitian)

Support continued breast feeding where possible.

Diagnostic Evaluation¹

Typical symptoms confirmed by SPT >3mm
Atypical or absent symptoms confirmed by SPT>5mm
Supervised challenge in a minority of patients

If CMA confirmed refer to a Dietitian

Diagnostic Evaluation¹

GI symptoms
Milk exclusion and assess improvement, followed by re-introduction**
Eczema
Milk exclusion 2-6 weeks, followed by re-introduction**

Return of symptoms upon re-introduction CMA confirmed
Refer to a Dietitian

**Refer to iMAP reintroduction leaflet to iMAP

Please note there is a growing number of infants that present with mixed IgE and non IgE mediated symptoms. Please, keep this in mind when you are reviewing patients.

*** The summary flow chart is adapted from the British Society Allergy and Clinical Immunology (BSACI)¹ and Milk Allergy in Primary Care (MAP)² guidelines to facilitate a quick review. For the detailed algorithms refer to BSACI and MAP guidelines.

* Daily calcium and Vitamin D supplementation recommended as per local guideline

References:

1. D. Luyt, et al. Cow's Milk Allergy Algorithm, Clinical & Experimental Allergy. Volume 44, Issue 5, May 2014, Pages: 642-672. Available at:<https://www.bsaci.org/wp-content/uploads/2019/12/Milkallergyalgorithm.pdf> Accessed Aug 2020.

2. Fox et al. An update to the Milk Allergy in Primary Care guideline, Clin Transl Allergy (2019) 9:40 <https://doi.org/10.1186/s13601-019-0281-8>.

3. National Institute for Health and Clinical Excellence. CG116: Food allergy in children and young people. 2011. Available at: <https://www.nice.org.uk/guidance/cg116>