

# MANAGEMENT FLOW CHART OF SUSPECTED CMPA IN AN INFANT < 12 MONTHS IN PRIMARY CARE

Adapted from the MAP (milk allergy in primary care) guideline. For full details see <http://cowsmilkallergyguidelines.co.uk/the-map-guideline/>

Also refer to NICE guideline CG116 'Food Allergy in Children and Young People' Feb 2011: <http://www.nice.org.uk/guidance/CG116>

Approved by Camden Medicines Management

Committee (CMMC) 27<sup>th</sup> July 2016 & Camden

Clinical Cabinet 7<sup>th</sup> September 2016

To be reviewed July 2019

Take an allergy focused clinical history and family history of atopy

**Non IgE-mediated CMPA 'DELAYED' onset symptoms**  
(2-72 hours after ingestion of CMP –  
formula fed, exclusively breast fed or at onset of mixed feeding)

## **MILD TO MODERATE SYMPTOMS** –

One, or often, more than one of:

### **GI**

- 'Colic'
- Vomiting
- 'Reflux'
- Abdominal discomfort
- Constipation
- Loose or frequent stools
- Food refusal/aversion
- Perianal redness
- Blood and/or mucus in stools (*in an otherwise well infant*)

### **Skin**

- Pruritus
- Erythema
- Significant atopic eczema

### **Respiratory**

'Catarrhal' airway symptoms (usually with one or more of the above symptoms)

**Can be managed in Primary Care**

See Management Flow Chart for Mild to Moderate Non IgE-mediated CMPA

**SEVERE SYMPTOMS** – one or more  
**persisting severe** symptoms:

### **GI**

- Diarrhoea and vomiting
- **Significant** blood and/or mucus in stools
- Irregular/uncomfortable stools
- Food refusal/aversion
- Faltering growth

### **Skin**

- Severe atopic eczema

**If formula fed:** - initiate trial of amino acid formula (AAF)  
**SMA Alfamino® (Birth - 3yrs<sup>†</sup>)**  
Only prescribe 1-2 tins initially to assess tolerance/acceptance and until infant seen by **secondary care** and **paediatric dietitians**. Provide tips on improving palatability of feed.

**Ensure URGENT referral to secondary care paediatrician**

**Ensure URGENT referral to paediatric dietitian**

**IgE-mediated CMPA 'ACUTE' onset symptoms**  
(mostly within minutes of ingestion of CMP and  
mostly formula fed or at onset of mixed feeding)

## **SEVERE**

### **IgE-mediated CMPA** **ANAPHYLAXIS**

Immediate reaction with severe respiratory and/or CVS signs and symptoms.  
(Rarely a severe GI presentation)

**Emergency treatment and hospital admission**

**If breast fed:** – advise breast feeding mother to exclude all cow's milk from maternal diet and to take daily calcium (1000mg) and vitamin D (10mcg/400 IU) supplements

† or until the infant grows out of allergy

## **MILD TO MODERATE SYMPTOMS** -

Immediate onset of one or more symptoms:

### **GI**

- Diarrhoea
- Vomiting
- Abdominal pain/'colic'

### **Respiratory**

- Acute rhinitis
- Conjunctivitis

### **Skin**

- Acute pruritus, erythema, urticaria, angioedema, acute 'flaring' of atopic eczema

**If formula fed:** – initiate trial of extensively hydrolysed formula (eHF)

- 1) **Similac Alimentum® (Birth -2yrs<sup>†</sup>)** or
- 2) **Althera® (Birth – 3yrs<sup>†</sup>)**

Only prescribe 1-2 tins initially to assess tolerance/acceptance and until infant seen by **secondary care** and paediatric dietitians. Provide tips on improving palatability of feed.

**IgE testing needed to confirm diagnosis**  
**Referral to secondary care paediatrician required**

If diagnosis confirmed (which may require a Supervised Challenge) – follow-up with serial IgE testing and later a planned and Supervised Challenge to test for acquired tolerance  
Consider referral to paediatric dietitian if required.

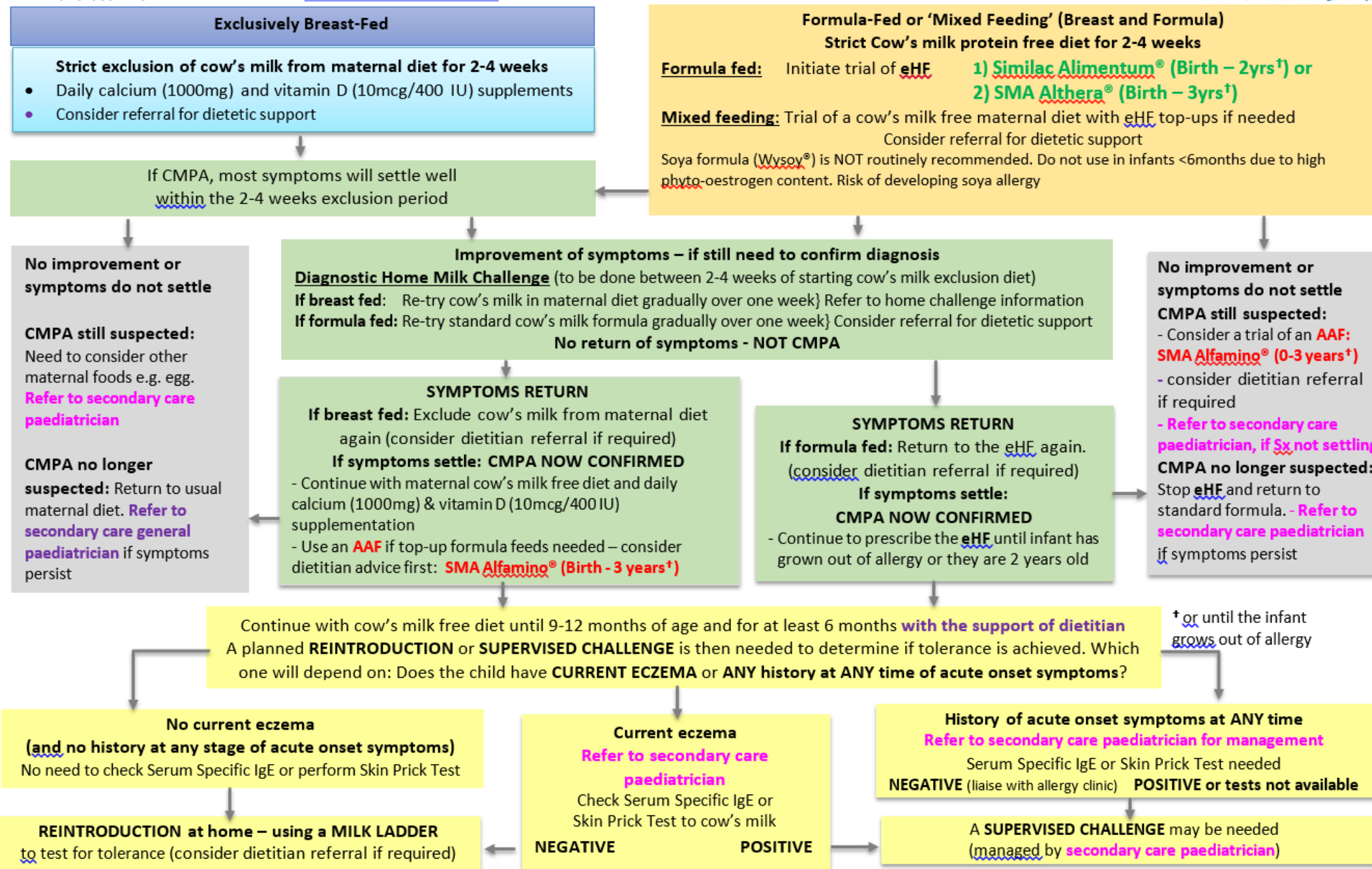
# MANAGEMENT FLOW CHART FOR MILD TO MODERATE NON IgE-MEDIATED CMPA IN PRIMARY CARE:

No initial IgE Skin Prick Tests or Serum Specific IgE Assays necessary.

Adapted from the MAP (milk allergy in primary care) guideline. For full details see <http://cowsmilkallergyguidelines.co.uk/the-map-guideline/>

Milk choices in CMPA

[Milk Free food fact sheet](#)



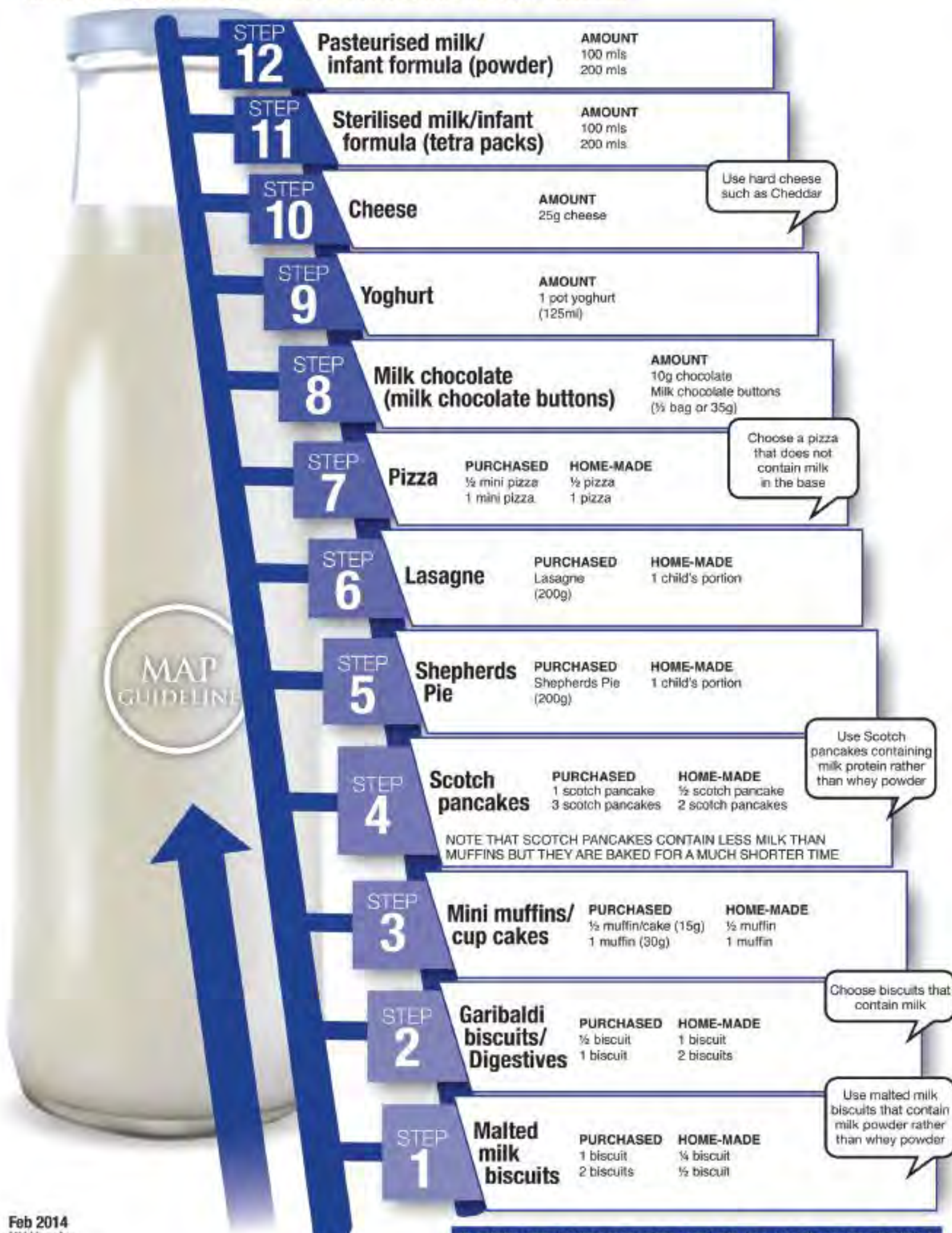


# THE MAP MILK LADDER®



THE MAP GUIDELINE  
MILK ALLERGY IN PRIMARY CARE

For Children with Mild to Moderate Non-IgE Cow's Milk Allergy  
Under the Supervision of a Health Care Professional, ideally a Dietitian



## Practical Pointers on using **THE MAP MILK LADDER®** for Parents

The following 'Pointers' should make it easier for you to understand how best to use this Ladder. We advise that you are supported by a Health Care Professional (HCP) until the Ladder has been successfully climbed. This may be your doctor, nurse or ideally your dietitian.

- Before starting the Ladder and progressing to each further Step, please ensure that your child is well at the time and also that any gastrointestinal symptoms or eczema are settled.
- Most children will start on Step 1. Some may already eat one or more of the foods on the Ladder. If that is the case, you need to be advised which Step of the Ladder you should start on.
- + The Ladder has 12 Steps, but your HCP may adjust the number of Steps to suit your child best.
- + The time spent on each Step will vary from one child to another (e.g. one day or 1 week) and this should also be discussed and agreed with you.
- The amounts in the Ladder are given as a guide - occasionally smaller or larger amounts may be recommended.
- + The Ladder includes commercially available and home-made options.  
Recipe ideas are available at:  
<http://www.ctajournal.com/content/3/1/23>  
Scroll down and click on 'Additional file 3. Recipes to go with milk ladder'  
Each of the recipes has an egg and wheat free option (they are all soya free) to make the Ladder suitable for those children who may have other co-existing allergies.
- If the food on any Step of the Ladder is tolerated, your child should continue to consume this (as well as all the foods in the previous Steps) and then try the food suggested on the next agreed Step.
- + If your child does not tolerate the food in a particular Step, simply go back to the previous one. You should then be advised when that next Step can be tried again.

In a few of the more severe cases of CMA a more cautious start to the Milk Ladder may be recommended, beginning with smaller amounts in Step 1, e.g. a ¼ or ½ of a malted milk biscuit.

Carina Venter, Trevor Brown, Neil Shah, Joanne Walsh, Adam T. Fox.  
Clin Transl Allergy. DOI 10.1186/2045-7022-3-23 (additional file 1 and 3)

Feb 2014

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## Practical Pointers for Parents/Carers on carrying out the MAP HOME CHALLENGE

To **CONFIRM THE DIAGNOSIS** of Mild to Moderate Non-IgE Cow's Milk Allergy  
After an agreed period of milk exclusion, usually 2 to 4 weeks

A Challenge is needed to confirm that any noted improvement in symptoms was really due to cow's milk allergy and not due to other possible factors.

- DO NOT start the Challenge if your child is unwell e.g:
  - Any respiratory or breathing problems (this includes common colds).
  - Any tummy or bowel symptoms.
  - Any 'teething' symptoms which are thought to be unsettling your child
  - Eczema is flared up
- DO NOT start the Challenge if your child is receiving any medication that may upset the bowels, such as a course of antibiotics.
- DO NOT introduce any other new foods during the Challenge.
- Keep a record of what your child eats and drinks during the Challenge and record any possible symptoms such as, vomiting, bowel changes, rashes or changes in their eczema.

### A Practical Example of a Challenge in a Formula Fed Child

The Days	Volume (mls.) of Boiled Water	Hypoallergenic Formula No. of Scoops	Cow's Milk Formula No. of Scoops
Day 1	210 mls.	6 in 1 <sup>st</sup> bottle	1 in 1 <sup>st</sup> bottle
Day 2	210 mls.	5 in 1 <sup>st</sup> bottle	2 in 1 <sup>st</sup> bottle
Day 3	210 mls.	4 in 1 <sup>st</sup> bottle	3 in 1 <sup>st</sup> bottle
Day 4	210 mls.	3 in 1 <sup>st</sup> bottle	4 in 1 <sup>st</sup> bottle
Day 5	210 mls.	2 in 1 <sup>st</sup> bottle	5 in 1 <sup>st</sup> bottle
Day 6	210 mls.	1 in 1 <sup>st</sup> bottle	6 in 1 <sup>st</sup> bottle
Day 7	210 mls.	0	7 in 1 <sup>st</sup> bottle

## The Home Challenge

How you carry out the Challenge depends on whether you are giving any formula milk or are fully breast feeding.

**Formula Fed Child** (those taking only formula feeds or taking formula as well as breast feeds).

- Each day increase, as set out in the example in the right-hand column, the amount of cow's milk formula in just the **FIRST** bottle of the day.
- If symptoms are obvious, **STOP** the Challenge. Give only the prescribed formula again and inform your dietitian or GP.
- If no symptoms occur after day 7, when you have replaced the 1st bottle of the day completely with cow's milk formula, give your child cow's milk formula in all bottles.
- If you were also breast feeding and on a milk free diet yourself, start eating products containing milk again, e.g. milk, cheese and yoghurt.
- If no symptoms occur within 2 weeks of your child having more than 200mls of cow's milk formula per day, he/she does not have cow's milk allergy.

### Fully Breast Fed Child

- Simply reintroduce cow's milk and cow's milk containing foods into your own diet over a 1 week period.
- If symptoms are obvious, **STOP** the Challenge, return to your full milk exclusion diet and inform your dietitian or GP.
- If no symptoms occur, you can continue to drink cow's milk and eat cow's milk containing products, e.g. cheese and yoghurt.
- In a few children possible symptoms of cow's milk allergy may appear later, either when formula milk is introduced or on weaning when milk containing products or plain milk is introduced into your child's diet. Should this happen contact your dietitian or GP.



# THE MAP GUIDELINE

## MILK ALLERGY IN PRIMARY CARE

### For Older Children

If your child is in an older age group, your dietitian or GP may simply advise you to gradually replace his/her hypoallergenic milk with plain milk.

#### A Practical Example

The Days	Total Volume of Feed in mls.	Volume of Hypoallergenic Formula in mls.	Volume of Plain Milk in mls.
Day 1	210 mls.	180 mls. In 1* bottle or cup	30 mls. In 1* bottle or cup
Day 2	210 mls.	150 mls. In 1* bottle or cup	60 mls. In 1* bottle or cup
Day 3	210 mls.	120 mls. In 1* bottle or cup	90 mls. In 1* bottle or cup
Day 4	210 mls.	90 mls. In 1* bottle or cup	120 mls. In 1* bottle or cup
Day 5	210 mls.	60 mls. In 1* bottle or cup	150 mls. In 1* bottle or cup
Day 6	210 mls.	30 mls. In 1* bottle or cup	180 mls. In 1* bottle or cup
Day 7	210 mls.	0 mls.	210 mls. In 1* bottle or cup

- Each day increase, as set out in the example in the left-hand column, the amount of plain milk in just the FIRST bottle or cup of the day.
- If symptoms are obvious, STOP the Challenge. Give only the prescribed formula again and inform your dietitian or GP.
- If no symptoms occur after day 7, when you have replaced the 1st bottle or cup of the day completely with plain milk, give your child plain milk in all bottles or cups.
- If no symptoms occur within 2 weeks of your child having more than 200 mls of plain milk per day, he/she does not have cow's milk allergy.

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