

Prescribing.....

- ✚ Cows' milk allergy affects about 2% of infants.
- ✚ Prescriptions are available for alternative formula products but these should be used appropriately.
- ✚ Extensively Hydrolysed Formula (EHF) products are recommended first line.
- ✚ The more expensive amino acid formula (AAF) products should only be used when EHF products have been tried unsuccessfully or in cases of very severe allergies.
- ✚ The annual cost of these products is over £200K.
- ✚ The average cost per item of the AAF products is £289 compared with £89 for the EHF products.

## Background

Cows' milk allergy (CMA) affects approximately 2-3% of infants and can be extremely distressing for both the infant and the family (Allergy UK, 2019). It usually presents between the ages of 3-6 months and rarely after 12 months of age (BSACI, 2014). The allergy can be divided into two subgroups- IgE and Non IgE mediated allergies. Most infants (two out of three) will grow out of both forms of the allergy by school age but careful management in the meantime is crucial (NICE, 2015).

## Diagnosis

The signs and symptoms of CMA can be divided into three main categories- skin, gastrointestinal and respiratory (NICE, 2015). Taking an allergy-focused clinical history is key for an accurate diagnosis. Skin prick testing is only advisable in IgE mediated allergies to avoid the risk of false negatives (Venter *et al.* 2017). Referral onto secondary care and the paediatric dietitian is strongly recommended, both for support and for ongoing management.

## Guidelines

Following an update of the iMAP, new guidelines are being created for the diagnosis and management of CMA in Guernsey and Alderney and are circulated with this bulletin. We hope that this will improve patient care and promote clinically and cost effective prescribing. The hope is that there is reduced usage of the more expensive amino acid based formulas e.g. *Neocate LCP* and *Nutramigen Puramino*. The reasons for this are discussed below. The paediatric dietitian is available to discuss these guidelines should you have any questions.

## Treatment

Strict exclusion of cows' milk from the infant's diet is necessary along with the removal of other unmodified animal proteins (e.g. sheep or goats' milk). It is advised that soya milk is also eliminated from the diet initially (1 in 3 babies that react to milk protein will also react to soya protein). The dietary exclusions may also include dairy and soya

from the mother's diet where the child is being breast fed. In these cases it is important that the mother takes a multivitamin and mineral supplement including calcium and vitamin D - available over the counter. For those infants being formula fed there are suitable alternative formulas available on prescription. Please note, soya based formulas are not suitable for infants under the age of 6 months due to the presence of phytoestrogens.

**A prescription of an extensively hydrolysed formula (eHF) is suitable for approximately 90% of sufferers (NICE, 2015).** Examples of these types of milks include *Aptimel Pepti*, *Althera*, *Nutramigen lipil (LCP)* or *Similac Alimentum*. **These products should be considered for first line treatment of CMA.** Further details will be available in the new local guidelines.

For those patients that do not see an improvement with the use of eHF after two weeks, **amino acid formulas (AAF)** can be considered. These should however be reserved for certain cases of severe allergies and those that cannot tolerate the eHFs. In those infants where the allergy is deemed very severe or life threatening then the AAF may be considered as first line.

**The use of AAF as *general* first line treatment for all infants is not recommended** as new research suggests that low level exposure to the allergen is important to build tolerance to the milk protein and therefore the child is more likely to grow out of the allergy. Furthermore there are cost implications for the health service with the AAF being a costly product. An example of an eHF is £13.67 per tin where as an AAF comes in at £29.56 for a (smaller) tin (BNF, 2019).

In light of new evidence surrounding exposure to milk protein it is now recommended that babies with non-IgE mediated allergy who have needed an AAF initially, should be stepped down to eHF after about 6 months of starting the formula (Canani *et al.* 2017).

### **Cost**

In October 2019, the latest month for which we have prescribing data, the cost of feeds for infants with CMA was £18,000. The average cost per item of the amino acid formulae was £289 compared with £89 for the extensively hydrolysed formulae.

### **Monitoring and Support**

Re-introduction of milk after 2-4 weeks to confirm diagnosis is a key part of the management of CMA. After a confirmed diagnosis the infant requires weaning onto a milk and soya free diet and should be referred to the monthly weaning groups run by health visitors and the dietitian. Ongoing support from the paediatric dietitian is also available.

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## Appendix

### 1. Useful websites

CMPA Support website [www.cmpasupport.org.uk](http://www.cmpasupport.org.uk)

2019 iMAP update - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6689885/>

Weaning group details: 3<sup>rd</sup> Monday of the month, St Martins Community Centre, 2-3pm. Contact Lukis House for further details - Lukis House Admin [LukisHouseAdmin@gov.gg](mailto:LukisHouseAdmin@gov.gg)

### 2. References

- Allergy UK (2019), [online], *iMAP Guideline* available at: <https://www.allergyuk.org/health-professionals/mapguideline> accessed on 22nd October 2019.
- BSCAI (2014) *Cows Milk Allergy* [Online] Available at: <https://www.bsaci.org/Guidelines/milk-allergy> Accessed on 17th October 2019
- Canani B, Di Costanzo M, Bedogni G, *et al.* (2017) Extensively hydrolyzed casein formula containing *Lactobacillus rhamnosus GG* reduces the occurrence of other allergic manifestations in children with cow's milk allergy: 3-year randomized controlled trial. *J Allergy Clin Immunol* 139(6):1906\*1913.e4.
- NICE (2015) *Cows' milk Protein Allergy in children* [Online] Available at: <https://cks.nice.org.uk/cows-milk-protein-allergy-in-children> Accessed on 15th October 2019
- Ventor, C., Brown, T., Meyer, R., *et al.* (2017) Better recognition, diagnosis and management of non-IgE-mediated cow's milk allergy in infancy: iMAP-an international interpretation of the MAP (Milk Allergy in Primary Care) guideline. *Clinical and Translational Allergy*. 7, 26.
- NHSBSA data October 2020.