

# **UPDATE ON SPECIALIST INFANT FEEDING GUIDELINES**



**Miranda Potter and Lindsey Mowles  
Specialist Paediatric Dietitians  
Ipswich Hospital**

# OUTLINE

- Summary of Specialist Infant Formula Prescribing guidelines
- Updated guidelines/ key changes
- Diagnosis/management
  - Reflux
  - Lactose Intolerance
  - Cows milk protein allergy – IgE/Non-IgE
- Cows milk protein allergy (CMPA)
  - Prescribing the correct formula
  - Challenging and ongoing management
  - Update on new emerging evidence
- Vitamins
- Preterm infants



# SUMMARY OF SPECIALIST INFANT FEEDING GUIDELINES

- What do they include?
- Quick reference guide – key messages of immediate changes which can be made to patients on or starting specialist infant formula, including flow charts on the management of specific conditions
- Guidance on feed volumes to prescribe (*updated 2016*)
- Guidance on prescribing, reviewing and stopping formula in different clinical conditions:
- Secondary Lactose intolerance
- Cows milk protein allergy (CMPA) (*updated 2016*)
- Preterm infants (*updated 2016*)
- Faltering growth
- Referral form to dietitian – Ipswich (*updated 2016*)
- Information leaflet on milk challenge (Parents and GP's)
- Help my child won't eat information leaflet
- **[www.ipswichandeastsoffolkccg.nhs.uk/GPpracticememberarea/Clinicalarea/Medicinesmanagement.aspx](http://www.ipswichandeastsoffolkccg.nhs.uk/GPpracticememberarea/Clinicalarea/Medicinesmanagement.aspx)**



# UPDATED INFANT FEEDING GUIDELINES/ KEY CHANGES

- Reduce usage of amino acid formula
- Use Extensively hydrolysed formula as first line treatment for CMPA (if formula fed)
  - Only exceptions include
    - If severe symptoms with faltering growth
    - Anaphylaxis
    - If no improvement on extensively hydrolysed formula after 4-6 weeks
- New dietetic referral form
  - **only accepting e-referrals**
- Formula updates
  - Prescribing volumes increased for under 6 months
  - Pepti Junior removed
  - SMA **Pro** gold prem 2 (change of name)
  - Preterm: guidance on vitamins and iron added



# DIAGNOSIS

Symptoms	Reflux	Lactose Intolerance	CMPA (Non IgE-mediated)	CMPA (Ig E-mediated)
Irritability	√	√	√	√
Back arching	√	√	√	√
Increased wind	√	√	√	√
Loose stools/ Diarrhoea		√	√	√
Constipation			√	√
Abdominal pain			√	√
Blood and/or mucus in stools			√	√
Vomiting	√		√	√
Atopic Eczema			√	√
Faltering growth			√	
Acute Urticaria				√
Acute Angiodema				√

Management	Reflux	Lactose Intolerance	CMPA Non-IgE	CMPA IgE
Practical Advice	Feed positioning Calm environment Bottle teat flow			
Medication	Feed thickeners Gaviscon/carobel			
Breast/ Formula Feeding	Breast feeding/ Standard formula with thickener Pre thickened feed: <i>SMA Staydown</i> <i>Aptamil anti-reflux</i> , <i>Enfamil AR</i> (Not to use with thickeners, not on px)	Rare in breast fed infants Lactose free formula: Not available on px <i>SMA Lactose Free</i> <i>Aptamil lactose free</i> <i>Enfamil O-Lac</i>	Breast fed maternal milk free diet Hydrolysed formula Trial for 4 weeks Diagnostic milk challenge	Breast fed maternal milk free diet Hydrolysed formula
Solids	Can be introduced from 17 weeks	Lactose free diet	Milk free	Milk free
Time scale	Often outgrow by 6 months -1 year	Review after 2 weeks Usually temporary 6- 8 weeks If no improvement consider CMPA	Re challenge at 8-10 months	Await repeat allergy tests

# DIAGNOSTIC MILK CHALLENGE GUIDELINES

- This guideline is designed to help confirm the initial diagnosis of CMPA (after a short period of milk exclusion) for Non-IgE mediated allergy only. Not for use in IgE mediated allergy.
- **Do not challenge** if the infant is unwell or if infant has a current eczema flare up.
- **Do not challenge** if the infant has commenced any new medication which may affect the gastrointestinal tract e.g. antibiotics.
- Do not introduce any other new foods during the challenge.
- If symptoms return this confirms the diagnosis and the challenge should be stopped.
- For those infants with confirmed CMPA please refer to the Paediatric Dietitian and consider referral to a Paediatrician.



# DIAGNOSTIC MILK CHALLENGE

## GUIDELINES FOR FORMULA FED INFANTS

<b>Days</b>	<b>Volume of boiled water (mls)</b>	<b>Cows' milk formula No. of scoops</b>	<b>Hypoallergenic formula No. of scoops</b>
<b>1</b>	<b>150mls</b>	<b>1</b>	<b>4</b>
<b>2</b>	<b>150mls</b>	<b>2</b>	<b>3</b>
<b>3</b>	<b>150mls</b>	<b>3</b>	<b>2</b>
<b>4</b>	<b>150mls</b>	<b>4</b>	<b>1</b>
<b>5</b>	<b>150mls</b>	<b>5</b>	<b>0</b>

- **GP/Health visitor to disseminate to parents**
- Add standard formula to morning bottle only.
- If no symptoms occur after replacing 1 bottle with standard formula the infant may continue to consume standard formula in all bottles.
- If symptoms have not returned in 2 weeks they do not have a CMPA.
- *If breast fed infant mum to introduce milk gradually into her diet over 1 week*





## Available Brands- eHF

### **Mead Johnson:**

Nutramigen 1 (< 6 months of age)  
Nutramigen 2 (>6 months of age)  
Extensively hydrolysed casein  
Tolerated by most due to small peptide chains  
With added probiotics (LGG)

### **Milupa Aptamil:**

Pepti 1 (< 6months of age)  
Pepti 2 (> 6months of age)  
contains lactose  
Extensively hydrolysed whey  
May help with vomiting due to increasing gastric emptying

### **SMA:** Althera (0-12 months)

Contains lactose. Extensively hydrolysed whey

### **Abbott:** Similac Alimentum (0-12 months)

Extensively hydrolysed casein



# AMINO ACID FORMULA

- Protein chains completely broken down to free amino acids
- Should only be started in secondary care unless in exceptional circumstances
- Average cost is between 80p – 90p per 100mls compared to hydrolysed 29-40p/100mls
- Amino acid formulas are over prescribed
  - NHS Ipswich and East Suffolk CCG
    - 48% of total hypoallergenic formula prescribed is amino acid
    - Usage of AA should be 10-15%
- NHS cost pressures
  - £23.6 million per year on management of CMPA
  - eHF cost per year per patient : £1853
  - AAF cost per year per patient: £3161



## Brands Available

### **Nutricia**

Neocate LCP (up to 1 year)

Neocate Active\*

Neocate Advance\*

### **Mead Johnson**

Nutramigen Puramino

### **SMA**

Alfamino (0-12 months)

\* Highly specialised products. Not to be used routinely and not to be used in babies < 12 months of age.



# SOYA

## ○ Breast fed infants

- If symptoms do not resolve completely on milk free diet alone trial removal of Soya from maternal diet as well as milk

## ○ Formula fed infants

- Soya formula is not recommended in infants under 6 months of age (*Department of health, London chief medical officers update 37, /2004*)
  - Due to high phytoestrogen content – evidence of potential risk to long term reproductive health of infants.

## ○ However still clinical need in:

- Infants with CMPA who refuse extensively hydrolysed or amino acid formula
- Vegan mothers unable to breast feed
- Infants with Galactosaemia



# NEW EVIDENCE IN CMPA

## ○ Step down:

- Patients on amino acid formula that may tolerate being transitioned back to a hydrolysed formula
- Helps acquire tolerance
- Reduce costs

## ○ Challenging earlier – Non IgE

- Previously recommended over 1 year
- Current evidence suggests benefits introducing between 8-10 months
- Delaying can cause Non IgE to develop into IgE
- Helps acquire tolerance earlier



# VITAMINS

- Vitamin D supplementation 10 micrograms
  - All breast fed infants from birth
  - Infants taking less than 500mls formula
  - Children ages 1-4 years

(Public Health England, July 2016)

- Parents/carers should be encouraged to purchase these
  - Healthy start vitamins are available through children's centres/health visitor clinics



# PRETERM NUTRITION

- Post discharge Formula (NEPDF)
  - Started at <34 weeks and <2kg at birth if not breast fed
  - Currently Stopped at 6 months corrected
  - Recent new evidence shown can stop earlier:
    - If excessive weight gain

## **Vitamin supplementation <34 weeks gestation**

Abidec :

- 0.6mls if breast fed up to 1 year corrected
- 0.3mls if on term or specialist formula up to 1 year corrected

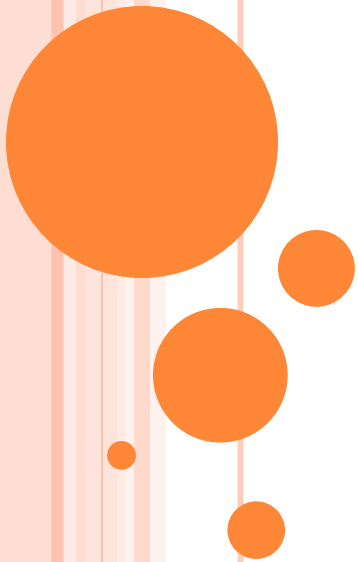
## **Iron Supplementation <37 weeks gestation**

Sytron:

- 1ml if breast fed up to 1 year corrected
- 1ml if on term or specialist formula up to 6 months corrected



QUESTIONS ?





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