

**Background and aims** Global prevalence of obesity has doubled the last 30 years, with WHO estimating that 10% of men and 14% of women worldwide are obese. The corresponding health risk is associated with a significant health system cost, loss of health related quality of life, and economic costs such as reduced productivity. Obesity in adulthood is the result of several factors, including weight gain during infancy. The objective of this paper is to demonstrate the impact on infant weight gain and economic value of low protein nutritional formula compared with standard protein nutritional formula.

**Methods** A double blind, randomised, controlled trial of 252 healthy infants born of overweight or obese mothers estimated the impact of formula on weight gain up to 36 months. A discrete event simulation estimated the corresponding impact on adult BMI, the incidence of obesity-related diseases and consequent lifetime changes in health care resources use, health related quality of life (HRQoL), and productivity.

**Results** Low protein infant formula reduced weight gain at 36 months by 0.31 kg (from 16.04 kg with standard formula to 15.74 kg with low protein formula). The simulation estimates the corresponding changes in the following outcomes over infants' lifetimes: a BMI; incidence of diabetes, stroke, CHD; health care costs, HRQoL and productivity.

**Conclusions** The use of low protein formula for infants of overweight or obese mothers not only reduces infant weight gain, but also generates lifetime improvements in quality of life, health cost savings and improvements in productivity.

**PO-0599 EFFECTS OF NON-NUTRITIVE SUCKING ON GASTROESOPHAGEAL REFLUX IN SYMPTOMATIC PRETERM INFANTS**

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**Background** The therapeutic management of gastroesophageal reflux (GER) in preterm infants still represents a controversial issue among neonatologists. To date, different non-pharmacological strategies, such as body positioning, milk thickening or changes of feeding modalities, have been proposed. However, the effects of non-nutritive sucking (NNS) on GER features, detected by multiple intraluminal impedance (MII), have not yet been evaluated in preterm newborns symptomatic for GER.

**Patients and methods** Nineteen preterm newborns (GE  $\leq$  33 weeks) with GER symptoms underwent a 24-hours pH-MII monitoring. During this period, each infant received eight meals, four followed by NNS, applied by means of pacifier, and four not. Differences in GER features (number of episodes, acidity, duration and height reached) between NNS and non-NNS postprandial periods were evaluated by Wilcoxon signed-rank test.

**Results** No significant difference in GER features between NNS and non-NNS periods was found. However, postprandial periods without NNS resulted in a slight increase in the mean duration of acid GER episodes (NNS vs. NON-NNS, median values: 51.15 vs. 88.20 sec,  $p$  0.159). Consequently, during NNS periods the time of esophageal acid exposure was reduced (NNS vs. NON-NNS, median values: 3.54 vs. 6.15%,  $p$  0.171).

**Conclusions** According to our results, NNS administration during postprandial periods seems to have no significant effects on GER features in symptomatic preterm infants. However, during NNS periods we observed a slight, though not significant,

**Abstract PO-0600 Table 1 Influencing factors in unsuccessful breastfeeding first day after delivery**

Factors		Epidemiologic causes
<b>Newborn causes</b>	<b>Macro nipple</b>	
Prematurity	Cosmetic appearance of breast	Age
Low birth weight	Drugs	District
Oral problem (cleft and lips palate)	Maternal addiction	Newborn gender
		Sequence of newborn
Swallowing problem	Maternal stresses	Delivery type
Sleepiness	<b>Cultural causes</b>	
Unilateral breast suckling	Pacifier usage	
Short suckling	Dextrose water feeding	
Poor attachment to breast	No belief to colostrums feeding	
<b>Maternal causes</b>	Family dispute of parents	
Milk insufficiency	Family consults	
Inverted nipples	<b>Medical causes</b>	
Breast engorgement	Newborn hospitalisation	
Nipples fissure	Maternal hospitalisation	
Maternal vaginal bleeding	<b>Educational causes</b>	
Breast milk inadequacy thought of mother	Physiologic delivery training	
	Breastfeeding training in rooming in	
Episiotomy pain	Academic graduate level	
Caesareans section incision pain		

reduction in the duration of acid GER, which plays a relevant role in the development of GERD. Further larger evaluations are needed to eventually confirm these preliminary data.

**PO-0600 ASSESSMENT OF UNSUCCESSFUL MATERNAL BREASTFEEDING FACTORS IN FIRST DAY AFTER DELIVERY**

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**Background and aims** In this research we study the preventive factors in successful breastfeeding in first day after delivery.

**Methods and materials** This research type was observational descriptive case series. It takes from August 2013 to February 2014. Our target populations were 387 and contain every delivered mother with breastfeeding problems in first day after delivery. For every mother unsuccessful breastfeeding factors as table-1 determined and data analysed with SPSS type 20 software and assessed with Pearson's correlation and linear regression.

**Abstract PO-0600 Table 2 Unsuccessful maternal breastfeeding factors influencing correlation**

confidence level	Standardised Coefficients		causes
	Sig.	(Beta)	
100%	.000	.400	Newborn causes
100%	.000	.426	Environment and Hospital causes
100%	.000	.744	Maternal causes
98.6%	.014	-.064	Cultural causes
94.6%	.054	.047	Educational causes
93%	.699	-.009	Epidemiologic causes