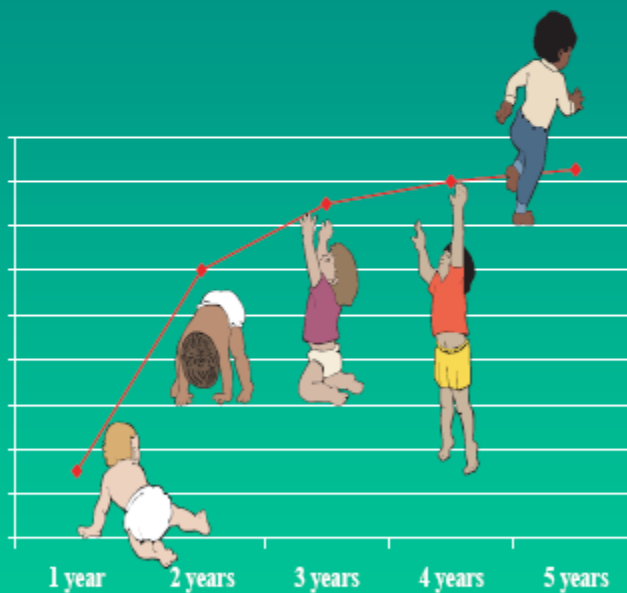


WHO Child Growth Standards

Head circumference-for-age, arm circumference-for-age,
triceps skinfold-for-age and subscapular skinfold-for-age

Methods and development



The MGRS data provide a solid foundation for developing a standard because they are based on **healthy children living under conditions likely to favour achievement of their full genetic growth potential**. Furthermore, the mothers of the children selected for the construction of the standards engaged in fundamental health-promoting practices, namely **breastfeeding** and **not smoking** (de Onis et al., 2004b).

A second feature of the study that makes it attractive as a basis for an internationally applicable standard is that it included children from a diverse set of countries: **Brazil, Ghana, India, Norway, Oman and the USA**. By selecting privileged, healthy populations the study reduced the impact of environmental variation (WHO Multicentre Growth Reference Study Group, 2006a). Another key characteristic of the new standards is that they **explicitly identify breastfeeding as the biological norm** and establish the breastfed child as the normative model for growth and development (WHO Multicentre Growth Reference Study Group, 2006b). In addition, the new standards include windows of achievement for six gross motor developmental milestones which are presented elsewhere (WHO Multicentre Growth Reference Study Group, 2006c). Although WHO in the past issued recommendations concerning attained physical growth, it had not previously made any recommendations for assessing motor development.



La situation en France

Colloques du Groupement des Anthropologistes de Langue Française (GALF)

Rovillé-Sausse, F., 2006

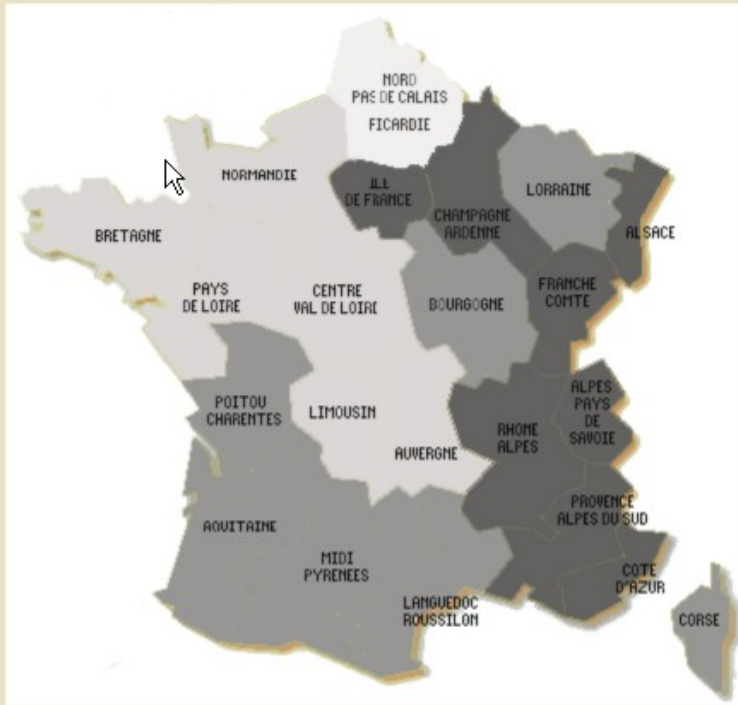


Figure 1. Taux d'allaitement en France par régions (en 1997), au 8^{ème} jour post-natal (d'après Action pour l'Allaitement).
 Figure 1. Rate of breast feeding in France by areas (in 1997), at the 8th postnatal day (according to Action for Breast feeding).

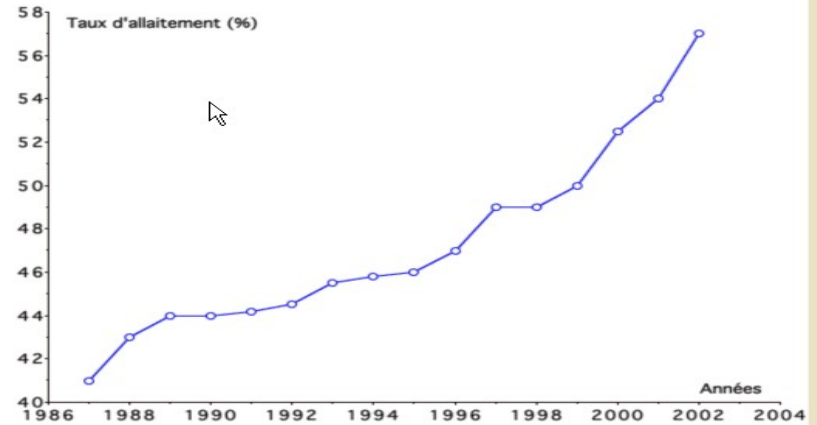
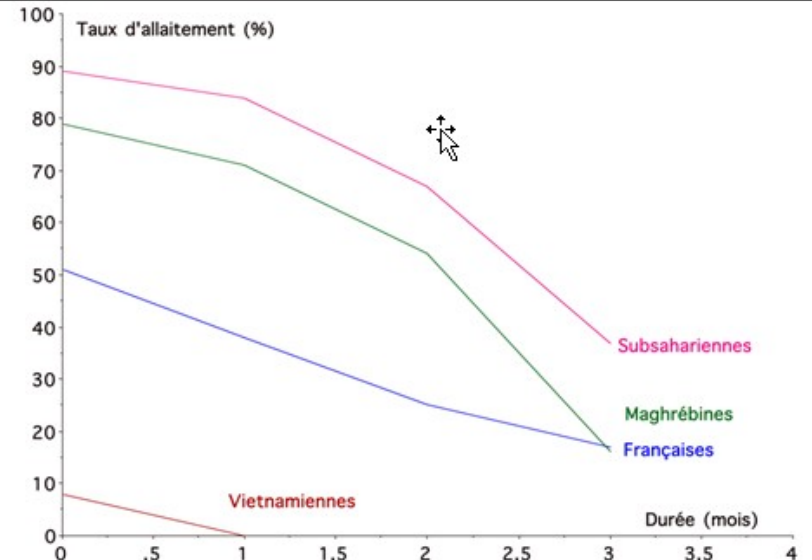


Figure 2. Evolution du taux d'allaitement à la naissance de 1987 à 2002.
 Figure 2. Evolution of the rate of breast feeding at birth from 1987 to 2002.





1. Adopter une politique d'allaitement maternel écrite et systématiquement portée à la connaissance de tout le personnel soignant et des bénévoles.
2. Donner à tout le personnel soignant les compétences nécessaires pour mettre en œuvre cette politique.
3. Informer toutes les femmes enceintes et leur famille des avantages de l'allaitement.
4. Aider les mères à commencer l'allaitement dans la demi-heure suivant la naissance.
5. Indiquer aux mères comment pratiquer l'allaitement au sein et comment entretenir la lactation même si elles se trouvent séparées de leur nourrisson.
6. Ne donner aux nouveau-nés aucun aliment ni aucune boisson autre que le lait maternel, sauf indication médicale.
7. Pratiquer la cohabitation – laisser l'enfant avec sa mère 24 heures par jour.
8. Encourager l'allaitement au sein à la demande de l'enfant.
9. Ne donner aux enfants nourris au sein aucune tétine artificielle ou sucette.
10. Encourager la constitution d'associations de soutien à l'allaitement maternel et encourager les mères à les fréquenter dès leur sortie de l'hôpital ou de la clinique.

Breastfeeding training for health professionals and resultant changes in breastfeeding duration

*Breastfeeding Promotion in Health Services,
Universidade Federal de São Paulo / Escola Paulista de Medicina, São Paulo, Brazil*

METHODS

Study design. The effect of training on the length of time infants were breastfed was assessed in eight hospitals assigned at random to either the exposed group (staff attending the SLC course) or the control group.¹¹ In order to achieve comparability, the eight institutions satisfied the following criteria: public or philanthropic; located near the city of São Paulo, Brazil (within 100 Km); no previous exposure to a similar course; professional staff (two physicians and one nurse) available to attend the course full time for a 3 week period; and at least two births per day in the maternity ward.

Table 1. Comparison of before and after cohorts for exposed and control groups for potential confounding variables

Variables	CONTROL			EXPOSED		
	before	after	P value	before	after	P value
n	239	237		253	241	
% male	48.2	51.8	0.356	47.1	55.9	0.049
Mean birth weight (g)	3184	3194	0.498	3140	3189	0.199
Mean mother's age (years)	28.9	25.8	0.094	26.4	26.0	0.625
% mothers born in urban areas	77	75	0.649	76	77	0.222
% mothers living with fathers	89	86	0.262	82	86	0.146
% literate mothers	94	93	0.843	92	93	0.491
% mothers intending to breastfeed	95	96	0.388	94	90	0.082
% primiparae	44	37	0.252	34	35	0.439
% normal deliveries	65	64	0.583	73	68	0.288

Les avantages du lait de mère

- Diminution des allergies ?
- Mode d'allaitement et corpulence : diminution du risque d'obésité $RR=0.74$ (5001, BMJ 2003)
- Diminution de la TA (Lancet 2001, BMJ 2003)
- Diminution de la cholestérolémie (pediatrics 2002)



**Les enfants allaités sont ils
plus intelligents ?**

Oui, en moyenne de 4 à 5 points de QI.....

BMJ

Effect of breast feeding on intelligence in children: prospective study, sibling pairs analysis, and meta-analysis

Geoff Der, G David Batty and Ian J Deary

BMJ 2006;333:945-; originally published online 4 Oct 2006;
doi:10.1136/bmj.38978.699583.55

What is known already on this topic

Breast feeding has many benefits for both child and mother

Breastfed children tend to score higher on intelligence tests

There are important differences between mothers who breast feed and those who do not

What this study adds

The apparent effect of breast feeding on intelligence in offspring is accounted for by characteristics of the mother and the home environment

The mother's own intelligence plays the largest part in this explanation

Table 5 Supplementary analysis—sibling pairs

Breast feeding	PIAT-total		Maths*		Reading*		Comprehension*	
	Difference (SE)	P value	Difference (SE)	P value	Difference (SE)	P value	Difference (SE)	P value
Status†	-0.63 (0.94)	0.506	0.02 (1.01)	0.984	-1.00 (0.96)	0.296	-0.54 (1.00)	0.589
Duration‡	-0.13 (0.76)	0.866	-0.11 (0.82)	0.890	-0.41 (0.79)	0.602	0.20 (0.79)	0.796

PIAT=Peabody individual achievement test.

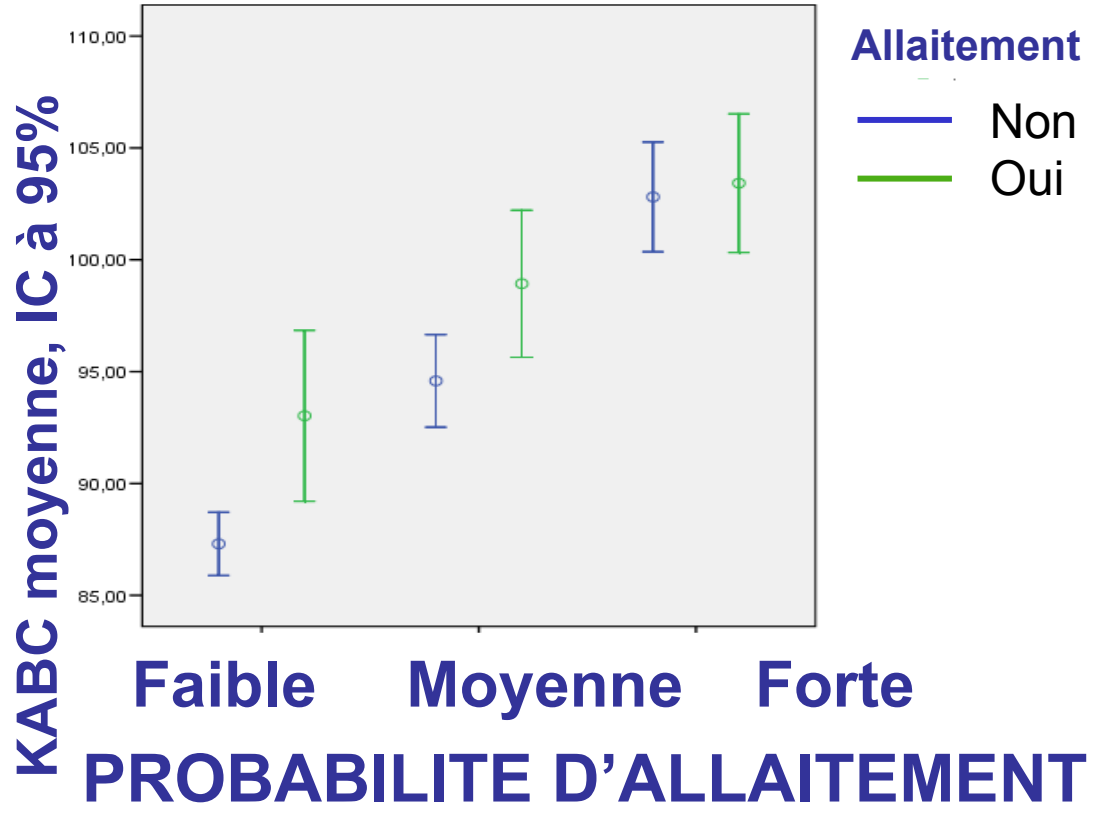
*Individual components of PIAT.

†Breastfed sibling minus non-breastfed sibling; n=332 pairs.

‡Sibling with longer duration minus sibling with shorter duration (n=545 pairs).

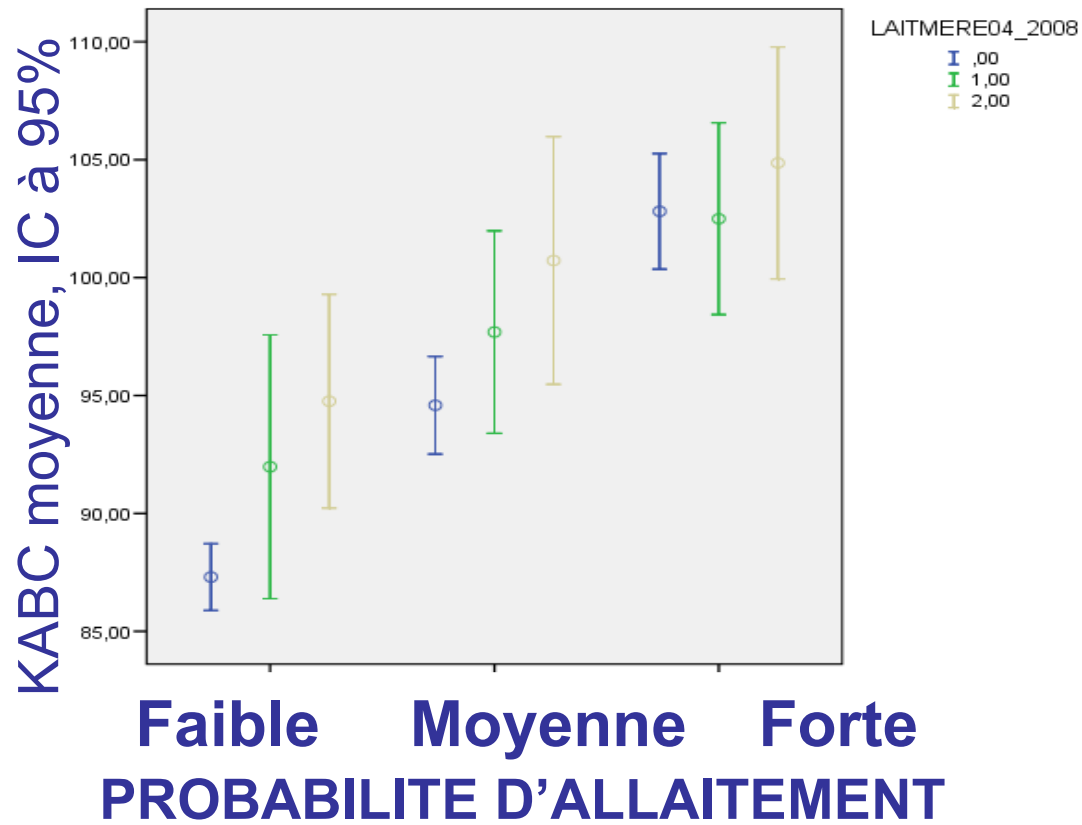
Study name	Statistics for each study		N	Age (years)	IQ test	SES	Mother							Difference in means (95% CI)
							Edn	Age	Smoker	HOME	Birth order	Birth weight	Gestation	
	Difference in means (SE)	P value												
Hay	7.92 (2.94)	0.007	130	11	WISC	-	-	-	-	Y	-	-	-	
Ghys	0.21 (2.82)	0.940	108	4	GOS	-	Y	-	Y	-	-	Y	Y	
Morrow-Tlucak	5.83 (2.57)	0.023	219	2	MDI	-	-	Y	Y	Y	-	-	-	
Gomez-Sanchiz	3.98 (1.53)	0.009	164	2	MDI	Y	Y	Y	Y	-	Y	-	-	
Jacobson	4.00 (1.49)	0.007	279	11	WISC	Y	Y	-	-	Y	-	-	-	
Wigg	0.80 (1.37)	0.560	343	12	WISC	Y	-	Y	Y	Y	Y	Y	-	
Fergusson	2.09 (0.65)	0.001	954	7	WISC	Y	Y	-	-	-	-	Y	Y	
Richards	0.98 (0.61)	0.109	511	8	SC	Y	Y	Y	-	-	-	-	-	
NLSY	0.52 (0.36)	0.149	5475	10	PIAT	Y	Y	Y	Y	Y	Y	Y	-	

Summary of studies that controlled for maternal IQ and other confounders as indicated. IQ tests: GOS=Groningen developmental scale; HOME=home observation for measurement of the environment scale; MDI=Bayley mental development index; PIAT=Peabody individual achievement test; SC=sentence completion; SES=socioeconomic status; WISC=Weschler child intelligence scale



EPIPAGE





EPIPAGE





Avantages certains du lait maternel :
meilleur pour la santé et plus économique



Mais de rares complications existent

- • Infectieuses
- Métaboliques
- Deficiences : vit K, zinc





Bacteriological screening of expressed breast milk revealed a high rate of bacterial contamination in Chinese women

D.K. Ng*, S.Y.R. Lee, L.C.K. Leung, S.F. Wong, J.C.S. Ho

Table III Result of bacteriological culture

Results of bacteriological culture	N (%)
EBM regarded as acceptable	22 (37)
EBM regarded as unacceptable	37 (63)
Due to bacterial count $> 10^5$ cfu/mL	17 (29)
Due to growth of pathogens:	14 (24)
Gram-negative bacteria and <i>Staphylococcus aureus</i>	
Due to both of the above	10 (17)
Total	59 (100)

EBM, expressed breast milk.

Infection à Strepto B tardive

Neonatal group B streptococcal disease associated with infected breast milk

William J Olver, David W Bond, Tim C Boswell, Sara L Watkin

Abstract

Premature triplets each developed late onset group B streptococcal disease over a period of nine weeks. The source of the organism appeared to be expressed maternal breast milk, in the absence of clinical mastitis. Asymptomatic excretion of group B streptococcus in breast milk may be an under-recognised cause of neonatal infection.

(*Arch Dis Child Fetal Neonatal Ed* 2000;83:F48–F49)

Finding an incidence of 3.5% in 1132 samples from lactating mothers. Kubin V, Mrastikova H, Paulova M, Motlova J, Franck J. Group B streptococci in the milk of lactating mothers. *Zentralblatt für Bakteriologie, Mikrobiologie und Hygiene* 1987;265:210–17.

(*Arch Dis Child Fetal Neonatal Ed* 2000;83:F48–F49)

Mais de rares complications existent

- Infectieuses

- • Métaboliques

- Deficiences : vit K, zinc



PEDIATRICS®

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Risk Factors for Suboptimal Infant Breastfeeding Behavior, Delayed Onset of Lactation, and Excess Neonatal Weight Loss

Kathryn G. Dewey, Laurie A. Nommsen-Rivers, M. Jane Heinig and Roberta J. Cohen
Pediatrics 2003;112;607-619
DOI: 10.1542/peds.112.3.607

TABLE 4. Logistic Regression Analysis of Risk Factors for SIBB on Day 0 (N = 220)*

Variable	RR	95% CI	P Value
Flat or inverted nipples	1.56	1.02-1.90	.04
Cesarean section × parity			.03
Multiparous/vaginal	1.00		
Multiparous/cesarean section	2.46	1.31-2.74	.02
Primiparous/vaginal	1.72	1.28-2.09	.001
Primiparous/cesarean section	1.68	1.06-2.24	.047
Clear amniotic fluid	1.55	1.05-1.98	.03

CI indicates confidence interval.

*Controlling for hours since birth when breastfeeding assessed (P = .005).

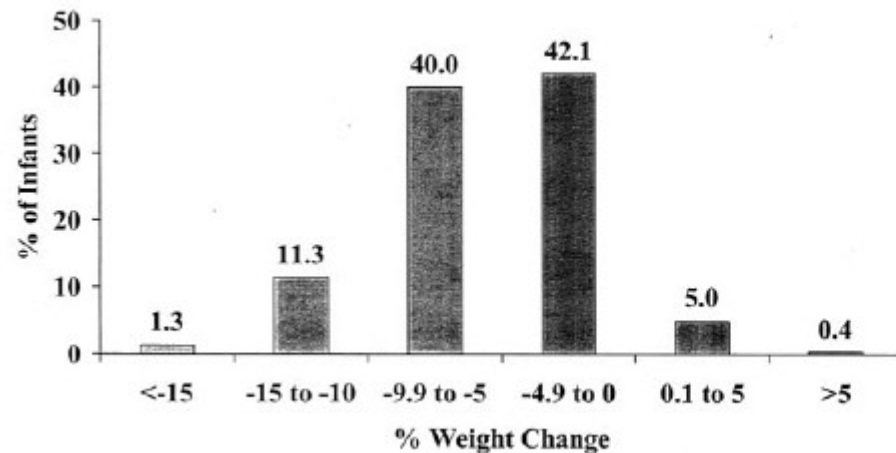


Fig 2. Percentage weight change, birth to day 3.

Hypernatraemic dehydration and breast feeding: a population study^I

S Oddie, S Richmond, M Coulthard



Abstract

As part of a population based regional review of all neonatal readmissions, the incidence of dehydration with hypernatraemia in exclusively breast fed infants was estimated. All readmissions to hospital in the first month of life during 1998 from a population of 32 015 live births were reviewed. Eight of 907 readmissions met the case definition, giving an incidence of at least 2.5 per 10 000 live births. Serum sodium at readmission varied from 150 to 175 mmol/l. One infant had convulsions. The sole explanation for hypernatraemia was unsuccessful breast feeding in all cases. The eight cases are compared with the 65 cases published in the literature since 1979. Presentation, incidence, risk factors, pathophysiology, treatment, and prevention are discussed.

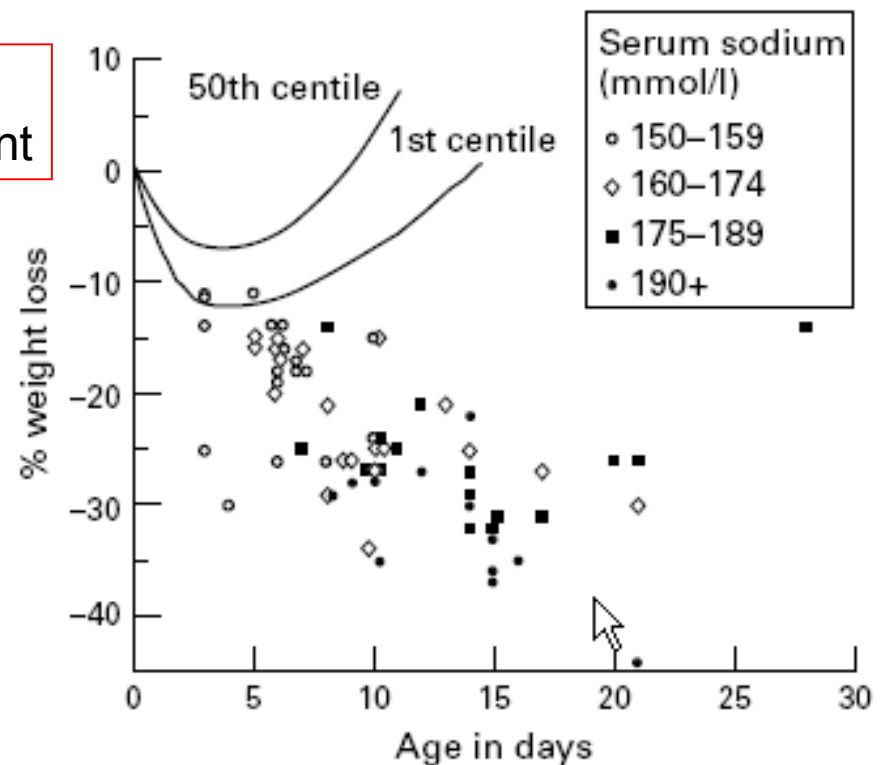
(Arch Dis Child 2001;85:318–320)

Table 1 Cases presenting with hypernatraemia on readmission

<i>Body wt (g)</i>	<i>Day of postnatal discharge</i>	<i>Day readmitted</i>	<i>Wt loss (%)</i>	<i>Max [Na] (mmol/l)</i>	<i>Fully breast fed on second discharge</i>
4220	7	10	15	151	No
3100	Home delivery	6	16	160	Yes
3720	2	7	17	150	No
3495	3	7	18	152	No
2670	2	6	19	156	No
2780	3	6	20	163	?
3590	2	8	26	157	No
2350	4	10	27	175	No

2.2% des enfants allaités de Maman dont c'est le premier allaitement

sent 32% of births. The incidence of hypernatraemic dehydration secondary to breast feeding difficulty of 2.5 per 10 000 live births can therefore be estimated to represent rates of 7.1 per 10 000 breast fed newborns, or 22.3 per 10 000 breast feeding first time mothers. Cases may have been missed because they occurred in infants before initial discharge home,^{23 24} or because appropriate investigations were not done. These figures therefore represent a minimum incidence.



Mais de rares complications existes

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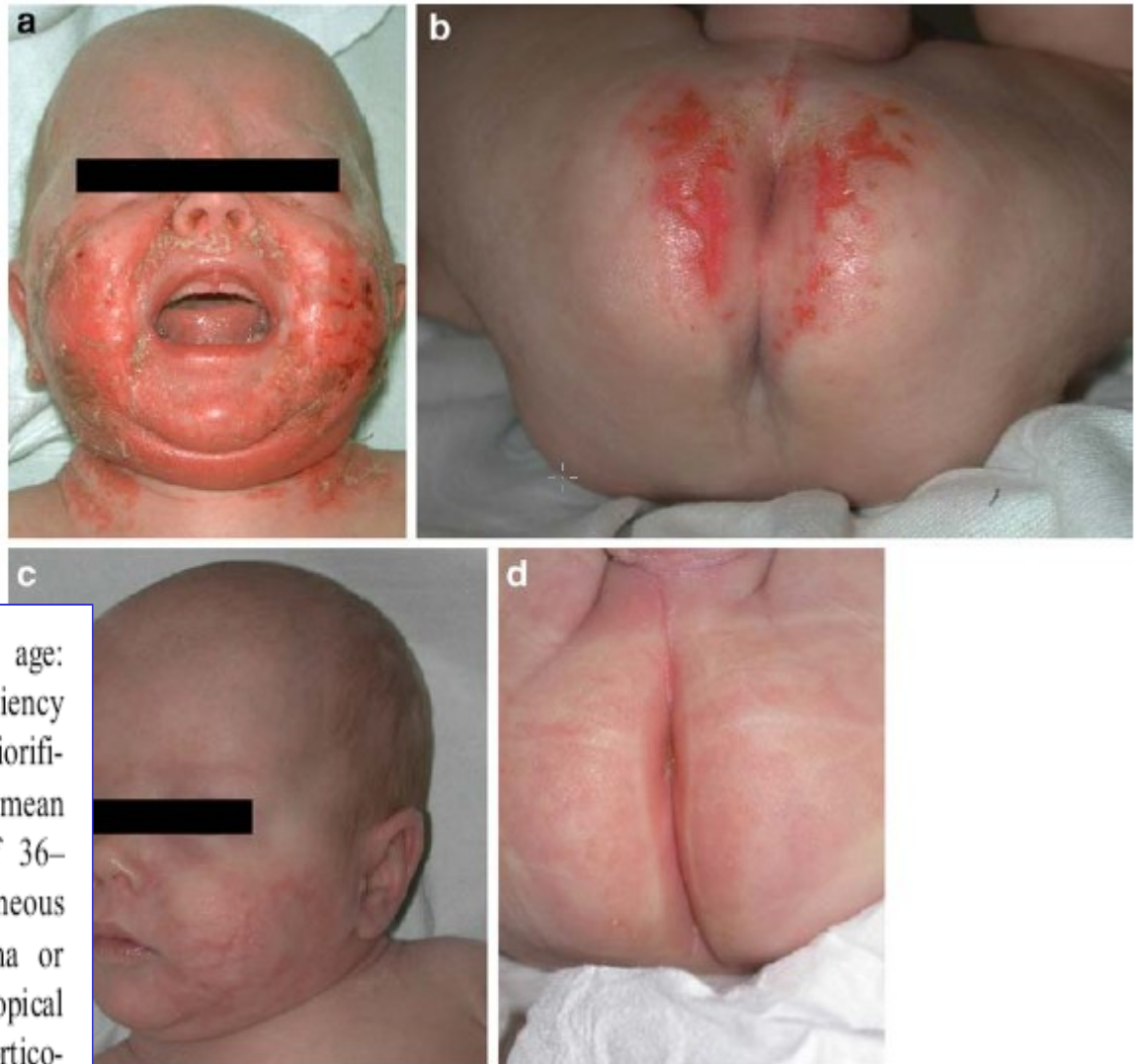
- Infectieuses

- Métaboliques



- ➔ • Deficiences : vit K, zinc

Fig. 1 Case no. 8. a, b Before treatment. c, d Four days after initiation of oral zinc supplementation (4 mg/kg BW/d). Note signs of skin atrophy on the cheeks (c) following topical steroid treatment prior to diagnosis



Abstract We report ten infants (mean gestational age: 30 weeks; range: 25 to 40 weeks) with zinc deficiency dermatitis who developed erosive, impetiginized periorificial dermatitis at 10 weeks of age (corresponding to a mean gestational age of 41.4 weeks, with a range of 36–44 weeks), but who were otherwise well. Cutaneous symptoms were initially misdiagnosed as eczema or impetigo in 8/10 (80%) children who received either topical (4/8) and/or systemic (6/8) antibiotics. Topical corticosteroids were applied in 4/10 infants for a mean time of 4 weeks (range: 2 to 5 weeks) before the correct diagnosis was established by decreased serum zinc levels; skin atrophy (telangiectasia, thinning) as a complication of



Avantage certain du lait maternel :
meilleur pour la santé et plus économique



Mais pas de fanatisme....

Review of NICE guidelines on routine postnatal infant care

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Accepted 8 August 2007
Published Online First
5 September 2007

The National Institute for Health and Clinical Excellence (NICE) has recently published guidelines on the management of women and their newborn infants during the first 6–8 weeks after delivery.¹ NICE guidelines aim at describing the “best practice advice on the core care of women and their babies during the postnatal period”. The present scheme of postnatal care was developed many years ago and NICE has reviewed it based on existing evidence. Unsurprisingly, the scientific evidence for best practice is incomplete. The money and time spent on postnatal care in Britain alone justify a systematic evaluation, but

COMMENTARY

Breast feeding

The NICE guidelines outline strategies to optimise the number of women who initiate breast feeding (box 2).

In addition, the guidelines give advice on breast feeding techniques, including signs of effective latching and suckling and management of complications such as engorgement and mastitis.

Nationally, only 65% of women who intended to breast feed and less than half of all mothers are breast feeding 6 weeks after delivering.¹ The Department of Health aims for a 2% annual



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Arch. Dis. Child. Fetal Neonatal Ed. 2008;93:10-13; originally published online 5 Sep 2007;