An international perspective on SIDS risk factors

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Background

- Canada (Advice to Health Canada, 2005)
- US (Challenged AAP advise on pacifiers, 2005)
- UK (Asked to comment on UK SIDS prevention messages, 2006)

Topics to be covered

- Bed sharing
- Pacifiers

Other topics included in UK programme

- Sleep position
- Maternal smoking in pregnancy
- Environmental tobacco smoke
- Thermal factors
- Head covering
- Sofa
- Sharing parental bedroom
- Illness and infection
- Immunisations
- Safe sleeping environment
- Breastfeeding

Bed sharing: The interaction between maternal smoking and infant bed sharing has now been confirmed in many studies:

New Zealand (case-control and cohort study)

CESDI

Nordic

Germany

Scotland (no interaction seen)

Ireland

ECAS

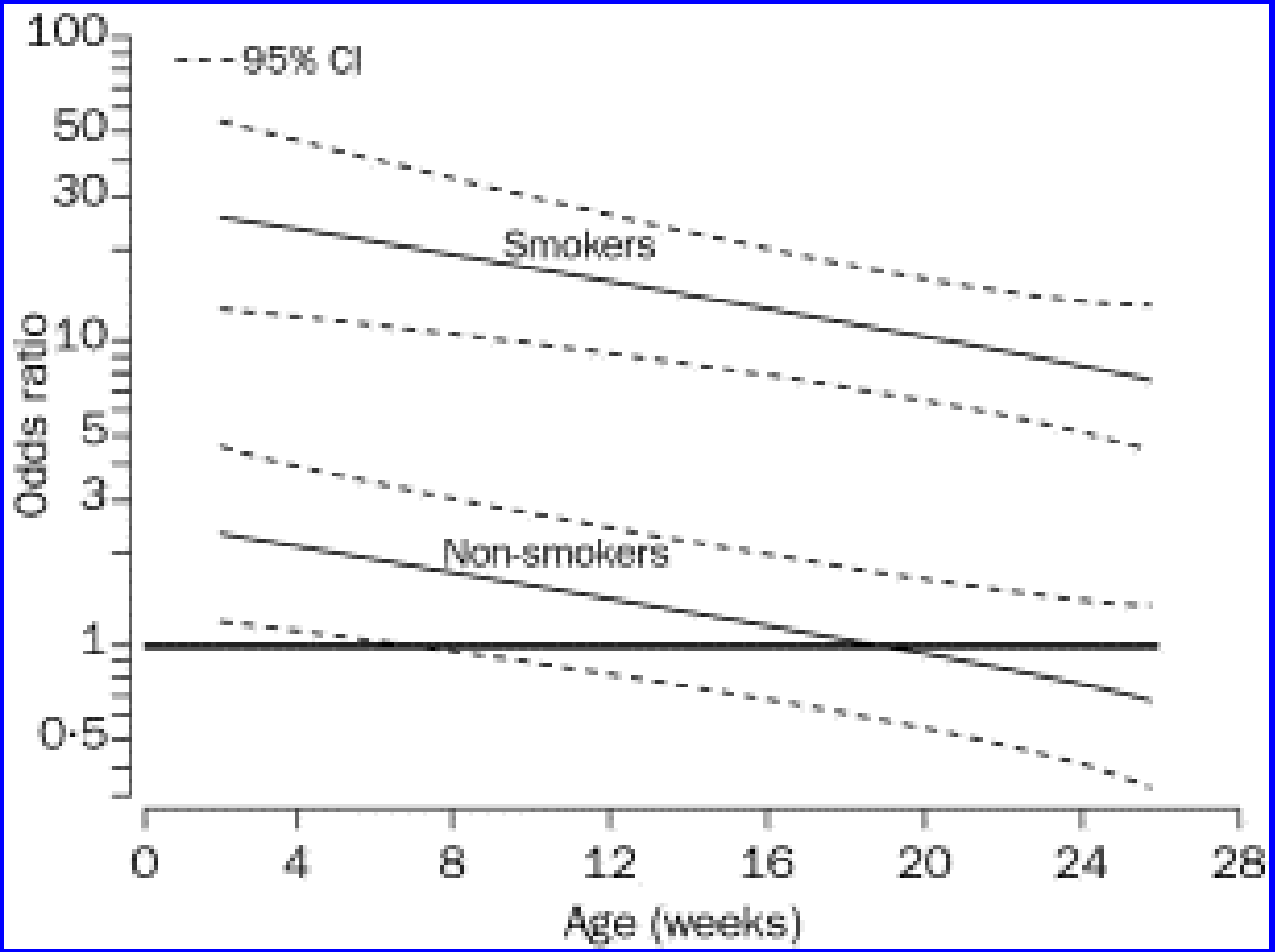
US (Present in the NICHD study, but not seen in the Chicago Infant Mortality Study)

Bed sharing infants who were placed back in their own cot to sleep

- Are not at increased risk (CESDI, Irish)
- However, mothers may intend to place their infant back in own cot, but fall asleep. This may account for why tired mothers and SIDS cases unaccustomed to bed sharing appear to be at higher risk.
- This provides strong evidence that bed sharing is the problem, and not just the characteristics of the families that bed share.

ORs (log scale) for SIDS and 95% CIs of bed-sharing by infant age and mother smoking or not during pregnancy.

Carpenter et al, Lancet, 2004



Conclusions

- The risk of SIDS with bed sharing is high when the mother smokes
- There is a small increased risk when the mother does not smoke in infants <3 months of age
- Bed sharing is associated with a longer duration of breastfeeding
- Bed sharing infants placed back in their cot are not at increased risk of SIDS
- There is no evidence that bed sharing is protective against SIDS in any group
- When an interaction is present, removal of either factor will achieve the same effect. Although stopping smoking is desirable, this is difficult to change. The emphasis on stopping the co-sleeper from smoking rather than stopping the smoker from co-sleeping is not addressing the problem.

Recommendations

Bed sharing is fine for cuddles and breastfeeding, but baby should be in own bed when parents go to sleep

We recommend a cot beside the parent bed for the first 6 months of life.

(3rd SIDS International Conference in Stavanger, 1994)

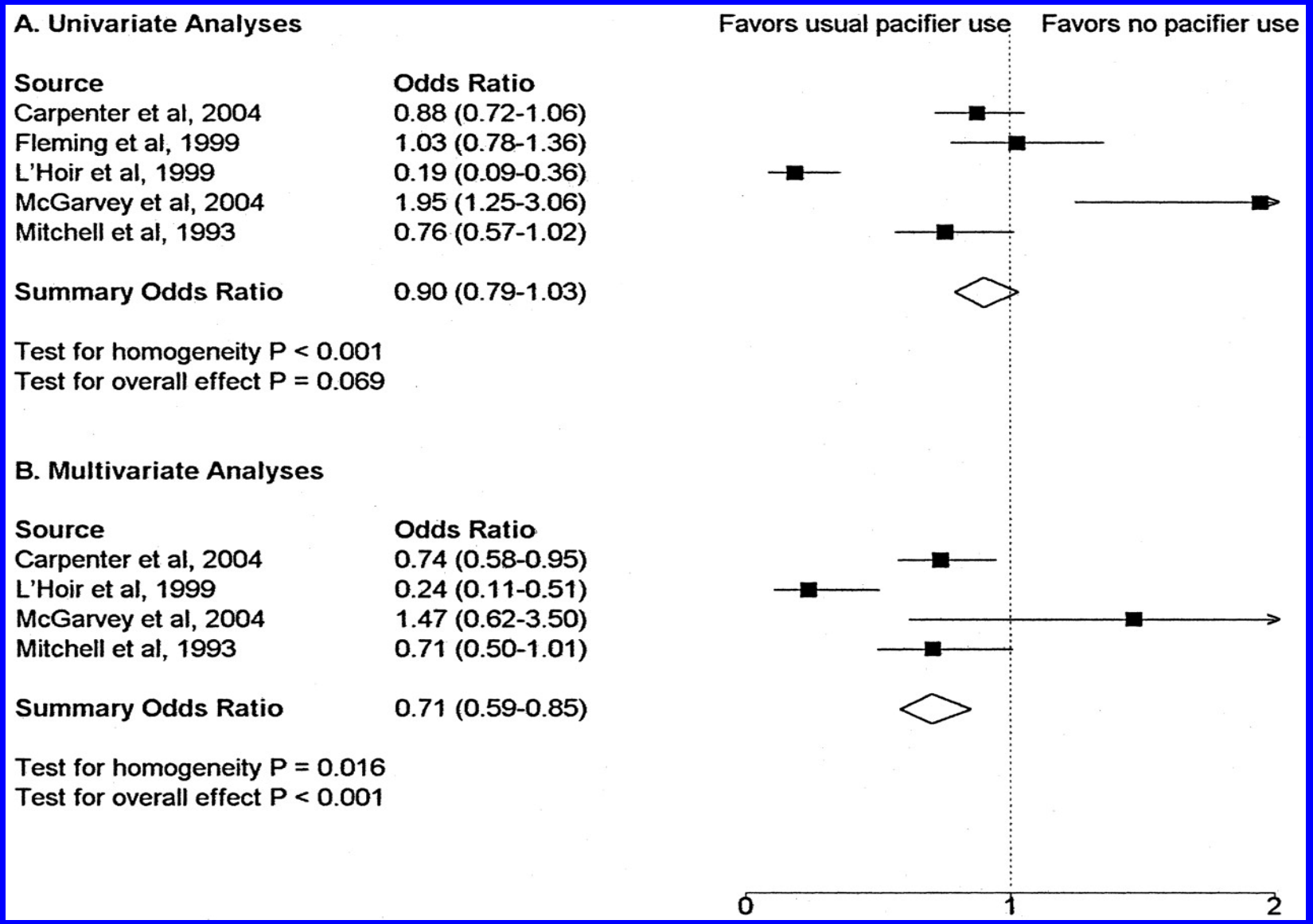
In Feb 2004 the UK Department of Health advised:

"The safest place for your baby to sleep is in a cot in your room for the first six months."

In October 2005 American Academy of Pediatrics:

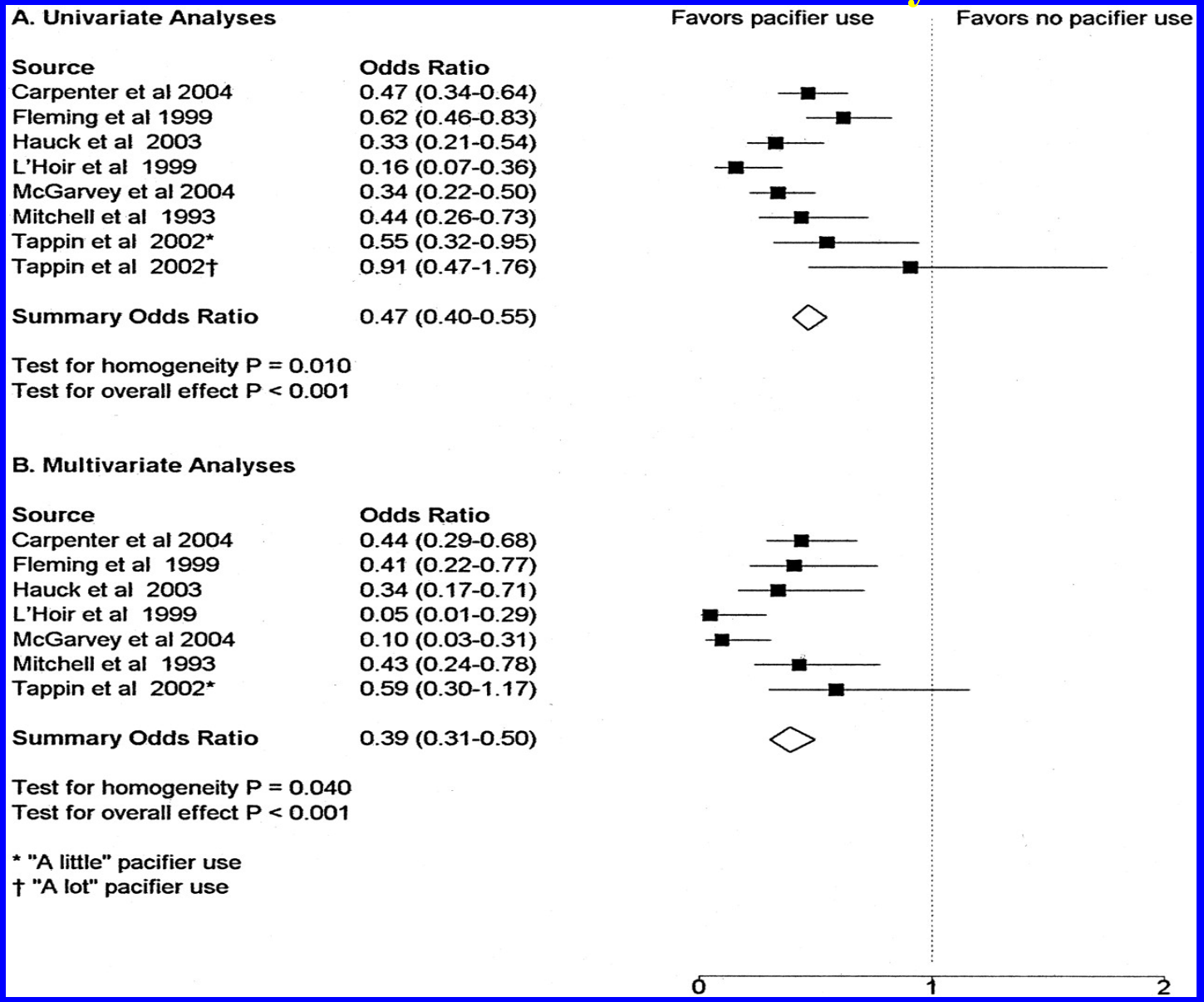
Emphasized "... the hazards of adults sleeping with an infant in the same bed"

Usual pacifier use and risk of SIDS: univariate and multivariate analyses



Hauck, F. R. et al. Pediatrics 2005;116:e716-e723

Last/reference-sleep pacifier use and risk of SIDS: univariate and multivariate analyses



Hauck, F. R., et al. Pediatrics 2005;116:e716-e723

Risk of SIDS with usual pacifier use

	Univariate	Multivariate
Mitchell	0.76 (0.57-1.02)	0.71 (0.50-1.01)
Fleming	1.02 (0.79-1.32)	Not given
L'Hoir	0.18 (0.09-0.36)	0.24 (0.11-0.51)
Arnestad	0.64 (0.41-1.00)	Not given
McGarvey	1.68 (1.10-2.58)	1.47 (0.62-3.50)
Carpenter	0.83 (0.68-1.00)	0.74 (0.58-0.95)
Mitchell*	0.37 (0.12-0.93)	Not given
Alm*	0.90 (0.65-1.25)	Not given

Pooled OR=0.83; 95% CI=0.75-0.93)

Mitchell et al, 2006

Risk of SIDS with pacifier use last sleep

	Univariate	Multivariate
Mitchell	0.44 (0.26-0.73)	0.43 (0.24-0.78)
Fleming	0.62 (0.48-0.81)	0.41 (0.22-0.77)
L'Hoir 0.14	(0.06-0.32)	0.19 (0.08-0.46)
Hauck 0.38	(0.24-0.59)	0.33 (0.15-0.70)
Brooke	0.60 (0.37-0.98)	0.33 (0.15-0.77)
McGarvey	0.33 (0.22-0.50)	0.10 (0.03-0.31)
Carpenter	0.46 (0.36-0.59)	0.44 (0.29-0.68)
Vennemann	0.58 (0.44-0.75)	0.39 (0.25-0.59)

Pooled OR = 0.48; 95% CI=0.43-0.54)

Mitchell et al, 2006

The AAP task force recommends use of a pacifier throughout the first year of life according to the following procedures:

- The pacifier should be used when placing the infant down for sleep and not be reinserted once the infant falls asleep. If the infant refuses the pacifier, he or she should not be forced to take it.
- Pacifiers should not be coated in any sweet solution.
- Pacifiers should be cleaned often and replaced regularly.
- For breastfed infants, delay pacifier introduction until 1 month of age to ensure that breastfeeding is firmly established.

Other possible health effects of pacifier

Disadvantages

Increased otitis media

Increased dental malocclusion

Decrease in duration of breastfeeding

Advantages

Decrease in dental malocclusion in finger sucking

Reduction in GE reflux

Reduction in behavioural distress in heelstick procedures

Possible mechanisms

- Reduction in infant face down
- Improved airway
- Reduction in GE reflux
- Increased arousal

Recommendations

- The evidence is consistent and moderately strong.
- The possible detrimental effects have to be balanced against the low risk of SIDS.
- Some countries are now recommending pacifier use, at least in bottle fed infants.
- Pacifiers should no longer be discouraged, but not specifically encouraged.

Other topics

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