

Results 402 infants died during the period 1/1998–12/2012 and 239 had an autopsy (59.4%). The mean value of days-of age-at-death in infants with autopsies was 9.8 ± 23 days, CI 95% (6.8–12.9) vs. 18.3 ± 28 days CI 95% (13.9–22.6) for cases without autopsy, $p < 0.01$. Group A had a high percentage of cases with autopsy: 115/ 171 (67%) In group D a low percentage of cases had an autopsy: 13/46 (28%). Using Kruskal Wallis rank test differences between Group A and group D were significant ($p < 0.001$).

Conclusions Autopsy rates in infants dying during the first 2 days of life were significantly higher than rates after 28 days of life. Reasons for these differences need to be evaluated in a prospective manner that should include social, educational, religious and behavioural aspects of parents and caregivers.

PO-0652 NEW NEONATAL RESUSCITATOR GIVES MORE LUNG VOLUME ON A MANNEQUIN MODEL

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10.1136/archdischild-2014-307384.1293

Background Bag mask ventilation of the newborn is the most difficult part of neonatal resuscitation, as experienced in the Helping Babies Breathe program. Methods to facilitate improved bag mask ventilation and aid training are therefore needed.

Methods 41 nursing and medical students without any knowledge of newborn resuscitation were trained in basic bag mask ventilation and ventilated with the two devices; a new Upright resuscitator (Laerdal Global Health, Stavanger) and a standard newborn resuscitator (Laerdal Medical, Stavanger) on a manikin in random order. Ventilation data was collected with the Newborn Resuscitation Monitor (Laerdal Global Health) and analysed for 40 students. One was omitted due to inaccurate data signal reading. The students answered questions grading mask seal (1) and ease of air entry (2) from 1 (difficult) to 4 (easy) and finally which device they preferred.

Results 31 of 41 (76%) students preferred the Upright resuscitator. For "mask seal" mean score was 3 for Upright and 2.5 for standard (one sample binomial test $p = 0.03$), and for "ease of air entry" 3.5 for Upright and 3.2 for standard ($p = 0.05$). Mean expired lung volume was 15.5 ml for Upright and 13.8 for standard resuscitator with mean difference 1.7 ml (95% confidence interval 3.2–0.2, one sample t-test for paired observations $p = 0.03$). Mean mask leakage for Upright was 46% and standard 60% (paired sample test $p < 0.001$).

Conclusion The students showed a preference towards the Upright resuscitator, which also provided a slightly higher expiratory volume and significantly reduced mask leakage compared to the standard resuscitator.

PO-0653 THE PERIODONTAL PATHOGENS IN THE SALIVA OF ONE-YEAR-OLD INFANTS DELIVERED WITH VERY LOW BIRTH WEIGHT

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10.1136/archdischild-2014-307384.1294

Aim The aim of this study is to identify the presence of main periodontal pathogens in the oral cavity of 12-month-old infants and compared the occurrence of these microbes between a cohort of very low birth weight infants and a control cohort.

Methods The research cohort was composed of 69 one-year-old infants, 24 of whom were born prematurely with very low birth weight and 45 of whom were born at term. At 12 months of age, both groups of infants were examined, and unstimulated saliva samples from the dorsum of the tongue and dental plaque samples were collected. The periodontal pathogens *Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis*, *Tannerella forsythensis*, *Treponema denticola*, *Peptostreptococcus micros*, *Prevotella intermedia* and *Fusobacterium nucleatum* were identified using a PCR-based method. Chi-square and Fisher's factorial tests were used for the statistical evaluation.

Results Periodontal pathogens were present in 83% of the pre-term infants and 96% of full-term infants. *Aggregatibacter actinomycetemcomitans* was the most common periodontal pathogen found in the oral cavities of the infants enrolled in our study. No statistically significant differences between the pre-term infants and the full-term infants were found regarding the presence of periodontal pathogens.

Conclusions The study confirmed the early transmission of periodontal pathogens to the oral cavity of one-year-old infants. Future research should focus on establishing the clinical importance of periodontal pathogens in the saliva of infants and their role in the aetiology of early onset periodontal disease.

The study was supported by grant IGA of Ministry of Health Czech Republic, NT 14336–3.

PO-0654 DELAYED BIRTH OF NEXT SIBLING IN FAMILIES WITH A PRETERM CHILD: ROLE OF OBSTETRIC HISTORY

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10.1136/archdischild-2014-307384.1295

Background Prematurity postpones the birth of a subsequent sibling. This phenomenon is strongest in mothers with long prior interbirth interval, a proxy of fertility problems.

Aim We assessed whether a history of miscarriages explains the postponed birth of next sibling after preterm birth.

Methods We obtained pregnancy and newborn data from Finnish Medical Birth Register (Jan 1, 1987 - Sep 30, 1990). Sibling data came from the National Population Register Centre.

Of the total of 230378 singleton births we excluded 1242 (0.5%) due to death before 1 yrs. GA was missing for 2922

Abstract PO-0654 Table 1

Miscarriages			
GA	n (subjects)	n (misc.)	% within GA group
<28	235	76	32,3
28–31	793	186	23,5
32–37	8360	1638	19,6
38–42	206640	35237	17,1
>42	9622	1467	15,2
total	225650	38604	17,1