

OUTCOME OF EXTREMELY LOW BIRTH WEIGHT INFANTS EXTUBATED

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Background and aims: Early extubation to nasal continuous positive airway pressure (nCPAP) may decrease bronchopulmonary dysplasia (BPD) or death in extremely low birth weight (ELBW; birth weight < 1000g) infants. We present our experience on ELBW infants extubated early (within first 24 hours).

Methods: Electronic records were retrieved for all inborn ELBW infants between April 2007 and October 2010. We reviewed birth weight, gestation, gender, failed extubations (re-intubated within 7 days) and outcomes (BPD, death) of ELBW infants extubated within the first 24 hours following birth. Continuous variables were compared using Student's t test and discrete variables were compared by Chi-squared test at 95% significance.

Results: Ninety-five infants were identified, 50 females and 45 males. Fifty-six (59%) were extubated within 24 hours after birth, 37 (39%) after day 1 but within 7 days, and 2 (2%) did not require intubation. Twenty (36%) infants extubated in the first 24 hours required re-intubation within 7 days. Infants extubated in the first 24 hours were significantly more mature (26.9 ± 1.4 weeks vs. 25.3 ± 1.4 weeks, $p < 0.0001$), had greater birth weights (826 ± 118 g vs. 738 ± 145 g, $p < 0.002$) and more likely to be alive at discharge compared to babies extubated after 24 hours (80% vs. 54%, $p < 0.05$). Composite outcome for death or BPD was significantly lower (46% vs. 73%, $p < 0.05$) in this group.

Conclusions: The majority of ELBW infants were extubated within 24 hours following birth. These infants were at significantly decreased risk of death or BPD.