A PROSPECTIVE POPULATION-BASED STUDY OF BIRTH AT 32-36 WEEKS OF GESTATION: NEONATAL OUTCOMES FROM THE LATE AND MODERATE PRETERM BIRTH STUDY (LAMBS)

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Background: Although late and moderate prematurity (32-36 weeks' gestation) represents 75% of preterm births, research in these infants is sparse. However, data from small or retrospective studies consistently suggest they are at greater risk of adverse outcomes than previously recognised.

Aim: A prospective population-based study of outcomes of infants born at 32-36 weeks' gestation.

Methods: All mothers and their babies delivering at 32-36 weeks were invited to participate, together with a random sample of infants born at ≥ 37 weeks. Mothers were interviewed and obstetric and neonatal records were reviewed.

Results: Preliminary data analysis for 728 preterm and 782 term live-born singleton infants recruited between September 2009 and September 2010 revealed that neonatal outcomes for preterm infants were significantly worse than those of term born infants (Table 1).

Conclusions: Births at 32-36 weeks far outnumber those below 32 weeks. The overall impact of adverse outcomes in these children is therefore likely to be greater than that of the most immature infants. This has implications for health services planning and resource allocation.

	32-36 weeks (n=99)	34-36 weeks (n=629)	≥ 37 weeks (n=782)	P value (χ^2 test)
Need for resuscitation, n (%)	42 (42.4)	120 (19.1)	76 (9.7)	<0.001
Admission to neonatal unit, n (%)	96 (97.0)	229 (36.4)	37 (4.7)	<0.001
Mechanical ventilation, n (%)	17 (17.2)	46 (7.3)	7 (0.9)	<0.001
Non-invasive respiratory support, n (%)	14 (14.1)	14 (2.2)	1 (0.1)	<0.001
Oxygen therapy, n (%)	5 (5.1)	19 (3.0)	8 (1.0)	0.004
Intravenous fluids, n (%)	62 (62.6)	115 (18.3)	18 (2.3)	<0.001
Length of neonatal stay, median (range)	17 (1-78)	4 (1-136)	2 (1-35)	<0.001

[Table 1]