Late preterm infants: birth outcomes and health care utilization in the first year.

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Abstract

OBJECTIVE: To distinguish the effects of late preterm birth from the complications associated with the causes of delivery timing, this study used propensity score-matching methods on a statewide database that contains information on both mothers and infants.

METHODS: Data for this study came from Arkansas Medicaid claims data linked to state birth certificate data for the years 2001 through 2005. We excluded all multiple births, infants with birth defects, and infants at <33 weeks of gestation. Late preterm infants (LPIs) (34 to 36 weeks of gestation) were matched with term infants (37-42 weeks of gestation) according to propensity scores, on the basis of infant, maternal, and clinical characteristics.

RESULTS: A total of 5188 LPIs were matched successfully with 15303 term infants. LPIs had increased odds of poor outcomes during their birth hospitalization, including a need for mechanical ventilation (adjusted odds ratio [aOR]: 1.31 [95% confidence interval [CI]: 1.01-1.68]), respiratory distress syndrome (aOR: 2.84 [95% CI: 2.33-3.45]), and hypoglycemia (aOR: 1.60 [95% CI: 1.26-2.03]). Outpatient and inpatient Medicaid expenditures in the first year were both modestly higher (outpatient, adjusted marginal effect: $108 [95% CI: $58-$158]; inpatient, $597 [95% CI: $528-$666]) for LPIs.

CONCLUSIONS: LPIs are at increased risk of poor health-related outcomes during their birth hospitalization and of increased health care utilization during their first year.