
OBJECTIVE: The objective of this study was to examine the time trend in length of stay (LOS) and explore potential differences in neonatal LOS by insurance type for preterm infants in Arkansas between 2004 and 2010.

STUDY DESIGN: There were 18,712 preterm infants included in our analyses. Accelerated failure time models were used to model neonatal LOS as a function of insurance type and discharge year while adjusting for key maternal and infant characteristics, and complication/anomaly indicators.

RESULTS: Before adjusting for the complication/anomaly indicators, the LOS for preterm infants delivered to mothers in the Medicaid group was 3.2% shorter than those in the private payer group. Furthermore, each subsequent year was associated with a 1.6% increase in the expected LOS. However, after accounting for complications and anomalies, insurance coverage differences in neonatal LOS were not statistically significant while the trend in LOS persisted at a 0.59% increase for each succeeding year.

CONCLUSION: All of the apparent differences in LOS by insurance type and more than half of the apparent increase in LOS over time are accounted for by higher rates of complications among privately insured preterm infants and increasing rates of complications for all surviving...
preterm infants between 2004 and 2010.