

Long-term Healthcare Utilization by Medicaid Enrolled Children with Neonatal Abstinence Syndrome

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Objective: To evaluate healthcare utilization in Medicaid enrolled children with neonatal abstinence syndrome (NAS) in the first 2 years of life.

Study design: A retrospective, longitudinal cohort study evaluating Medicaid enrolled children born in New York (1999-2011) and Texas (1999-2010) was performed. Healthcare utilization, including inpatient days, emergency department and outpatient visits, and filled prescriptions in children after birth hospitalization was assessed. A tapered propensity-matching methodology was used, matching each child with NAS with 5 children without NAS, first on demographics, then on both demographics and clinical covariates (clinical diagnoses and congenital anomalies at birth). Poisson and negative binomial regression were used to calculate healthcare utilization ratios (HUR).

Results: In the first 2 years of life, children with NAS ($n = 3799$) had increased healthcare utilization with more inpatient days and emergency department visits than demographically similar children without NAS. This increased utilization however did not persist after matching on clinical covariates and performing multiple comparisons adjustment (inpatient days [HUR, 1.01; 95% CI, 0.88-1.16; $P = .89$], total emergency department visits [HUR, 1.06; 95% CI, 1.01-1.11; $P = .02$]). Children with NAS conversely had 9% fewer outpatient office visits (HUR, 0.91; 95% CI, 0.87-0.95; $P < .0001$).

Conclusions: A diagnosis of NAS does not appear to be an independent predictor of increased healthcare utilization in the first 2 years of life. These results differ from some other published studies, but may suggest that the increased healthcare utilization observed in children with NAS is due to higher incidences of perinatal complications and congenital anomalies in children with prenatal drug exposures.