



Compare Healthcare Utilization in the First Three Years of Life for Infants with Prenatal Opioid Exposure Based on Type of Neonatal Care Received

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Compare Healthcare Utilization in the First Three Years of Life for Infants with Prenatal Opioid Exposure Based on Type of Neonatal Care Received

Abstract

Purpose/Background: Infants with prenatal opioid and other drug exposure often experience withdrawal symptoms known as neonatal abstinence syndrome (NAS). Some hospitals have modified clinical environments to promote recovery (reduced stimulation, nursery-like rooms, permitting rooming-in). While existing research has demonstrated efficacy of lower-stimulation environment, there is no known research evaluating longer-term implications of clinical environment on infant health beyond immediate neonatal period in states disproportionately affected by the opioid epidemic with diverse urban-rural populations such as Alaska.

Materials & Methods: The goal of this project is to determine whether supportive care decreases the likelihood of foster care placement from birth to age three by the type of neonatal care received using linked administrative health data from Alaska Medicaid and the Alaska Office of Children's Services (OCS) for infants born between 2010 and 2017, in the State of Alaska. Data sourced from Alaska Department of Health and Social Services (DHSS) Medicaid database was linked with data from Vital Statistics (birth and death records), and OCS data.

Demographic data (e.g., age of mother, urban and rural residence (based on census classification)) was extracted from Vital Statistics database. Reports of child maltreatment, duration of foster care placement, rates of adoption, and return to the biological family among infants placed in foster care based on NAS status and the type of neonatal care received sourced from OCS data. Regression was used to assess likelihood of infants removed to foster care at birth being returned to their mother by one year, Poisson or negative binomial regression to determine if there are significant differences foster care days and rates of adoption by infants with NAS based on receipt of neonatal supportive care.

Results: Based on interim analysis, infants with NAS who have been treated in a supportive care setting (e.g. Alaska Regional NEST) that uses rooming-in and a family oriented approach will have fewer days in foster care. This may be due to increased education and support provided to mothers and infants in lower-stimulation environment.

Discussion/Conclusion: Further study is necessary to understand the impact of supportive care interventions on the health outcomes of infants with NAS.

Keywords

Opioids; Healthcare Utilization; Infants; Neonatal Care

Authors

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ABSTRACT

Purpose/Background: Infants with prenatal opioid and other drug exposure often experience withdrawal symptoms known as neonatal abstinence syndrome (NAS). Some hospitals have modified clinical environments to promote recovery (reduced stimulation, nursery-like rooms, permitting rooming-in). While existing research has demonstrated efficacy of lower-stimulation environment, there is no known research evaluating longer-term implications of clinical environment on infant health beyond immediate neonatal period in states disproportionately affected by the opioid epidemic with diverse urban-rural populations such as Alaska.

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Poisson or negative binomial regression to determine if there are significant differences in foster care days and rates of adoption by infants with NAS based on receipt of neonatal supportive care.

Results: Based on interim analysis, infants with NAS who have been treated in a supportive care setting (e.g. Alaska Regional NEST) that uses rooming-in and a family oriented approach will have fewer days in foster care. This may be due to increased education and support provided to mothers and infants in lower-stimulation environment.

Discussion/Conclusion: Further study is necessary to understand the impact of supportive care interventions on the health outcomes of infants with NAS.