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Environmental influences on Child Health Outcomes
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Study Summary

Influence of Eat, Sleep, and Console on Infants Pharmacologically Treated for Opioid Withdrawal: A Post Hoc Subgroup Analysis of the ESC-NOW Randomized Clinical Trial

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Why was this study conducted?

This secondary analysis of infants enrolled in the Eating, Sleeping and Consoling for Neonatal Opioid Withdrawal (ESC-NOW) trial, which was conducted at 26 hospitals across the U.S., focused specifically on infants who received opioid treatment for NOWS after birth. The analysis was conducted to identify whether the ESC care approach decreased total postnatal opioid exposure when compared to sites' usual care practices, which included the use of the Finnegan Neonatal Abstinence Scoring Tool (FNAST).

What was done?

The authors analyzed data from 463 infants who were enrolled in the ESC-NOW trial. All infants were born at 36 weeks' gestation or later and received pharmacologic treatment for NOWS after birth. Three hundred and twenty infants were assessed and managed for NOWS with usual care, and 143 infants were assessed and managed with the ESC care approach.

What was found?

In this subgroup analysis, the authors found that total postnatal opioid exposure was substantially less for infants who were assessed and managed with the ESC care approach when compared to usual care.

The absolute mean difference in total opioid exposure was 4.1 morphine milligram equivalents (MME)/kilogram (kg) less for infants in the ESC group when compared to the usual care group (4.8 vs. 8.9 MME/kg respectively). Infants in the ESC group also received an average of 48.7 fewer opioid doses than those in the usual care group (67.5 vs. 116.1 doses respectively). In addition, the mean length of opioid treatment was 6.3 days less in the ESC group than in the usual care group (11.8 vs. 18.1 days respectively), and the mean length of hospital stay was 6.2 days less in the ESC group than in the usual care group.

The authors also found that the mean time from birth to the initiation of pharmacologic care was 22.4 hours longer in the ESC group than in the usual care group (75.4 vs. 53.0 hours respectively), but there was no difference in the mean peak opioid dose between groups.

What do the results mean?

1. Infants who were assessed and managed with the ESC care approach received less opioid medication for the treatment of NOWS after birth when compared to those who were assessed and managed with usual care, including the FNAST.
2. Infants assessed and managed with the ESC care approach also had fewer days of opioid treatment and a shorter length of hospital stay when compared to usual care.
3. The time from birth to the initiation of opioid treatment was longer in infants who were assessed and managed with the ESC care approach, but there was no difference in the peak dose of opioid medication, which suggests that the ESC care approach aptly assesses and supports acute opioid withdrawal.

Who sponsored this study?

This clinical trial is a collaboration between the NIH Environmental influences on Child Health Outcomes (ECHO) Program and the NIH's *Eunice Kennedy Shriver* Institute of Child Health and Human Development (NICHD), funded through the NIH Helping to End Addiction Long-term® Initiative (HEAL).

Where can I learn more?

Access the full journal article, titled "*Influence of Eat, Sleep, and Console on Infants Pharmacologically Treated for Opioid Withdrawal: A Post Hoc Subgroup Analysis of the ESC-NOW Randomized Clinical Trial*," in *JAMA Pediatrics*.

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