



# ECHO

Environmental influences  
on Child Health Outcomes

A program supported by the NIH

## Advancing Clinical Trials in Neonatal Opioid Withdrawal (ACT NOW) Research Studies



How is ECHO using clinical trials to study neonatal opioid withdrawal?

ECHO researchers are part of three ACT NOW studies, one that is now completed and two that are ongoing. These studies launched in Spring 2021 and aim to determine the best ways for hospitals to care for babies with neonatal opioid withdrawal syndrome (NOWS).

What have we learned about standard of care of infants with NOWS through ECHO trials?

Until now, there hasn't been strong evidence to support a standard approach to care for babies with NOWS. The [ACT NOW Current Experience Study](#) (completed) showed that there is large variation across the country in the care of infants with NOWS. The Eat, Sleep, Console (ESC) study was conducted to test a new standard of care for babies with NOWS.<sup>1</sup>



How does the Eat, Sleep, Console (ESC) approach improve care for babies with NOWS?

A [recent breakthrough NIH study](#) found that compared with usual care, the **ESC care approach significantly decreases the time until infants are medically ready for discharge and reduces use of opioid medications** to treat these babies. ESC prioritizes and emphasizes nonpharmacologic care, including increased family presence, holding, swaddling, and rocking in low-stimulus environments, as first line treatment.<sup>2</sup>

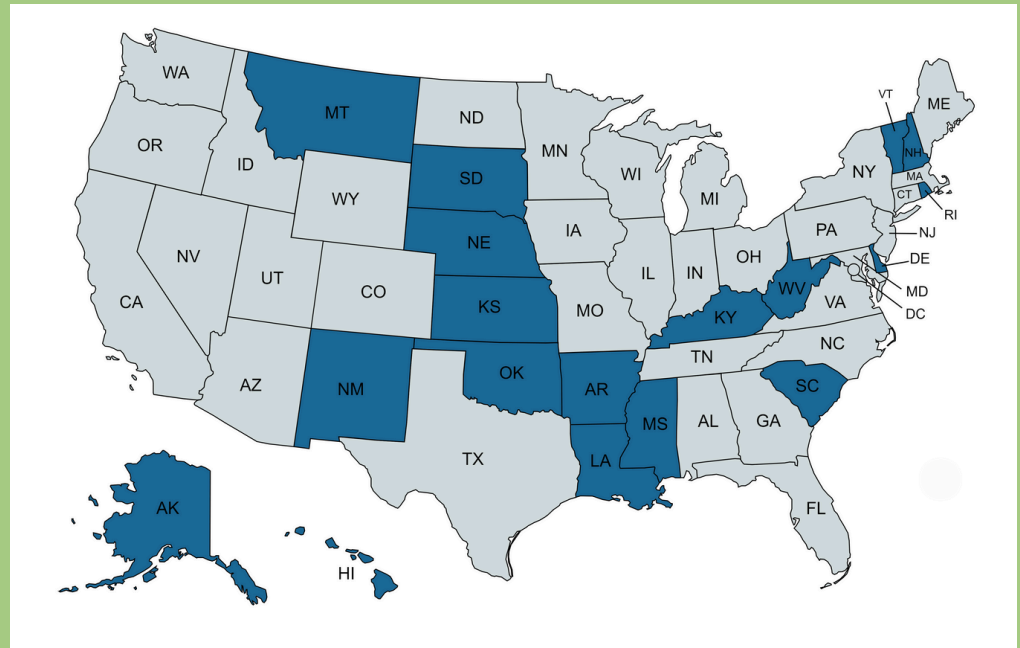


**NEW STUDY UPDATE:** Is ESC effective for babies that need opioid medication?

Researchers studied 463 infants that received opioid medication for NOWS after birth. They found that **infants who were assessed and managed with the ESC care approach started opioid treatment later and had significantly less postnatal opioid exposure when compared to usual care**. This suggests that ESC is safe and effective in for infants requiring opioid medication and can help to reduce the amount of opioid exposure after birth.<sup>3</sup>



**PARTICIPANTS  
FOR THESE  
STUDIES WERE  
RECRUITED  
FROM A LARGE  
NUMBER OF  
STATES AND  
TERRITORIES  
ACROSS THE  
U.S.**



## Publications & Citations

1. [Young, Leslie W et al. "Site-Level Variation in the Characteristics and Care of Infants With Neonatal Opioid Withdrawal." Pediatrics vol. 147,1 \(2021\): e2020008839. doi:10.1542/peds.2020-008839](#)
2. [Young, Leslie W., et al. "Eat, sleep, console approach or usual care for neonatal opioid withdrawal." New England Journal of Medicine 388.25 \(2023\): 2326-2337.](#)
3. [Devlin, Lori A., et al. "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." JAMA pediatrics \(2024\).](#)

## Funding for ACT NOW Clinical Studies

ACT NOW clinical trials are a collaboration between the [National Institutes of Health \(NIH\) 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 \(HEAL\)](#).

For questions on these findings or other ECHO Program activities, please email [NIHKidsandEnvironment@od.nih.gov](mailto:NIHKidsandEnvironment@od.nih.gov)