

## Hush Little Baby — Promise of the Eat, Sleep, Console Approach

Wanda D. Barfield, M.D., M.P.H.

*“Hush little baby, don’t say a word . . . .”* This traditional lullaby is symbolic of our attempts to offer an appropriate intervention for infants with neonatal opioid withdrawal syndrome. The incidence of this condition, which affects newborns after maternal opioid exposure during pregnancy, has increased substantially in recent years,<sup>1</sup> and more holistic approaches are being sought to support the care of mother, infant, family, and community.<sup>2</sup>

In this issue of the *Journal*, Young et al.<sup>3</sup> report the results of a large trial assessing a nonpharmacologic strategy — the Eat, Sleep, Console approach — for the treatment of neonatal opioid withdrawal syndrome. The study compares Eat, Sleep, Console with the more traditional approach of neonatal scoring for severity of withdrawal symptoms (typically, by means of the Finnegan or Modified Finnegan Neonatal Abstinence Scoring Tool<sup>4</sup>), which may overestimate the need for medications, typically morphine. The authors tested the hypothesis that the Eat, Sleep, Console approach can reduce the time until infants are ready for hospital discharge, without introducing harm.

Using a stepped-wedge, cluster-randomized method, the investigators assessed a sequential transition, in randomized order, of hospitals that treat neonatal opioid withdrawal syndrome from standard therapy (usual care) to the Eat, Sleep, Console approach. With the standard approach, a score of 8 or higher on the 21-point Finnegan scoring system assessing symptoms of opioid withdrawal (e.g., crying, loose stools, weight loss, and seizures) is considered to be an indication for opioid therapy. Fundamental components of the Eat, Sleep, Console approach include responding to newborns’ distress, watching for feeding cues, supporting a quiet and restful environment, and providing physical support through swaddling, rocking, and other means of consoling.<sup>3</sup>

The use of this revised approach resulted in a significant reduction in the study’s primary outcome (the time until the infant was medi-

cally ready for discharge, defined according to established criteria) from 14.9 days to 8.2 days (adjusted mean difference, 6.7 days; 95% confidence interval [CI], 4.7 to 8.8). Infants in the Eat, Sleep, Console group were treated with opioids less often than those receiving usual care. There were no apparent between-group differences regarding in-hospital adverse events or safety measures assessed at 3 months, including nonroutine infant health care visits, rehospitalization, nonaccidental trauma, or death.

The findings in this study have important implications for the approach to care of newborns with neonatal opioid withdrawal syndrome. This nonpharmacologic intervention and its research design for multicenter implementation also show the importance of Perinatal Quality Collaboratives,<sup>5</sup> state or multistate networks of teams working to improve the quality of care for mothers and babies. Early shared successes and dissemination efforts through these collaborative networks provide opportunities to improve maternal and infant health in both large academic medical centers and smaller community hospitals in urban and rural settings.<sup>6</sup> Since the publication of the first Eat, Sleep, Console quality improvement effort in 2017,<sup>7</sup> Perinatal Quality Collaboratives in Colorado and Massachusetts have disseminated the approach and standardized the care of infants with neonatal opioid withdrawal syndrome for nearly all birthing hospitals in these states.<sup>8,9</sup>

Nevertheless, some issues warrant consideration before further dissemination of this new approach. As reported by the investigators, a lower percentage of infants of Hispanic mothers were included in the Eat, Sleep, Console treatment group than in the standard-care group, owing to later transition of sites with larger Hispanic populations. A prior statewide quality improvement initiative of 13 birthing hospitals in Colorado, which also showed significant reductions in the length of hospital stay and pharmacologic treatment for infants after the initia-

tion of the Eat, Sleep, Console care approach, similarly described a later transition to this care approach among hospitals with greater proportions of Hispanic infants — and as a result, the benefits of this approach appeared later among Hispanic infants.<sup>9</sup> The quality of neonatal care has been shown to vary according to race and ethnic group among hospitals as well as within hospitals.<sup>10</sup> Implicit bias and discrimination may lead to differential use of the Eat, Sleep, Console approach according to race, ethnic group, or language spoken. Other factors that may influence the implementation and effectiveness of this approach include limited hospital space to accommodate mothers and families and inadequate staffing or training to consistently implement the care protocol, particularly in under-resourced hospitals.

In addition, because study investigators used electronic medical records from the birthing hospital to assess the incidence of rehospitalization, they may have missed potential emergency department visits or readmissions to hospitals outside the study area. To maximize the effectiveness of the Eat, Sleep, Console approach, hospitals will need to consistently implement it, regularly assess adherence to its components, and follow infants closely after hospitalization.

The Eat, Sleep, Console approach offers an innovative opportunity to use a tried-and-true way to care for babies affected by neonatal opioid withdrawal syndrome — by holding them. Realizing its full potential requires the tools and resources to make this simple and nonpharma-

cologic approach a treatment that is equitable and available for all.

The findings and conclusions in this editorial are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Disclosure forms provided by the author are available with the full text of this editorial at NEJM.org.

From the Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta.

1. Agency for Healthcare Research and Quality. HCUP fast stats. May 2022 (<https://hcup-us.ahrq.gov/faststats/landing.jsp>).
2. Patrick SW, Barfield WD, Poindexter BB. Neonatal opioid withdrawal syndrome. *Pediatrics* 2020;146(5):e2020029074.
3. Young LW, Ounpraseuth ST, Merhar SL, et al. Eat, sleep, console approach or usual care for neonatal opioid withdrawal. *N Engl J Med* 2023;388:2326-37.
4. Finnegan LP, Connaughton JF Jr, Kron RE, Emich JP. Neonatal abstinence syndrome: assessment and management. *Addict Dis* 1975;2:141-58.
5. Centers for Disease Control and Prevention. Perinatal Quality Collaboratives. September 22, 2022 (<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pqc.htm>).
6. Kroelinger CD, Rice ME, Cox S, et al. State strategies to address opioid use disorder among pregnant and postpartum women and infants prenatally exposed to substances, including infants with neonatal abstinence syndrome. *MMWR Morb Mortal Wkly Rep* 2019;68:777-83.
7. Grossman MR, Berkowitz AK, Osborn RR, et al. An initiative to improve the quality of care of infants with neonatal abstinence syndrome. *Pediatrics* 2017;139(6):e20163360.
8. Wachman EM, Houghton M, Melvin P, et al. A quality improvement initiative to implement the eat, sleep, console neonatal opioid withdrawal syndrome care tool in Massachusetts' PNQIN collaborative. *J Perinatol* 2020;40:1560-9.
9. Weikel BW, Palau MA, Hwang SS. Ethnic disparities in the care of opioid-exposed newborns in Colorado birthing hospitals. *Hosp Pediatr* 2021;11:1190-8.
10. Profit J, Kowalkowski MA, Zupancic JAF, et al. Baby-MONITOR: a composite indicator of NICU quality. *Pediatrics* 2014;134:74-82.

DOI: 10.1056/NEJMMe2304989

Copyright © 2023 Massachusetts Medical Society.