



Care of the Exposed Newborn (Eat, Sleep, Console)

Overview

Implement a non-pharmacologic bundle of care for neonatal abstinence syndrome (NAS)/ neonatal opiate withdrawal syndrome (NOWS) for medical staff and parents to follow.

Why We Recommend this Best Practice

A non-pharmacologic bundle of care for NAS/NOWS will help to prioritize non-pharmacologic interventions over medication, may reduce the length of stay, and will keep staff and parents aligned on the care being provided to the newborn.

Strategies for Implementation

Step 1: Collaborate with nursing and health care teams to develop a written guideline with a bundle of care that is specific for your unit. An example of a non-pharmacologic bundle of care for NAS/NOWS would include:

- **Parent/caregiver contact:** Emphasize parental presence at the bedside (rooming in, where available), the importance of skin-to-skin/holding the newborn, swaddling with the newborn's hands near the mouth, and non-nutritive sucking/pacifier use. Consider a volunteer cuddler when a parent or caregiver is unavailable.
- **Environment:** Establish an environment that is quiet with low lighting, limit the number of visitors, avoid excessive handling, encourage only one stimulus at a time (e.g., do not walk or sway while feeding). Swinging is okay but should be stopped if the newborn is overstimulated.
- **Nursing care:** Cluster nursing assessments and interventions at times when the newborn is awake.
- **Feeding:** Feed on-demand; encourage breastfeeding and lactation consultation if eligible (in the absence of any contraindications, breastfeeding should be encouraged while the mother is on methadone or buprenorphine treatment as part of a program); prioritize feeding consult if bottle feeding; and if formula feeding, consider reduced lactose or partially hydrolyzed lactose (not evidence-based) and consider 22 kcal/oz after day 2-3 if there is poor weight gain (loss of >10% of birthweight or not back to birthweight by 7 days of life).
 - Determine contraindications for maternal breastfeeding by unit for consistency. There are no medical contraindications to breastfeeding based on maternal methadone (prescribed as part of a treatment program), buprenorphine, or short-term low-dose prescription opioid use alone. The concentrations of methadone that can be found in human milk are low, and women on stable doses of methadone maintenance should be encouraged to breastfeed regardless of maternal methadone dose if they are in a treatment program. Buprenorphine has low levels in breastmilk and poor oral bioavailability in newborns.
 - Use breastmilk when not contraindicated to reduce the severity of NAS/NOWS and to minimize the need for pharmacologic exposure. Ensure a mother eligible for breastmilk use has a lactation consultation, access to a breast pump, and adequate instructions for its use.
 - Feed based on hunger cues/ad lib (usually q2-3 hours), if medically appropriate.
 - Anticipate possible increased caloric needs.
 - Rule out non-NAS causes of poor feeding including transitional sleepiness or frequent spit-ups in the first 24 hours of life, poor latch due to newborn/maternal anatomic factors or immature gestational age, and physiologic cluster feeding.

Strategies for Implementation

- **Skin:** Practice proactive prevention of diaper dermatitis and skin breakdown. Start diaper/barrier creams on day one and treat other areas of skin excoriation due to newborn tremors promptly.
 - Frequent stools increase the risk of perianal breakdown. This can be prevented by:
 - Starting diaper creams/barrier creams on day one
 - Frequent diaper changes
 - Liberal application of emollients and/or moisturizers
 - Careful assessment with each diaper change
 - Excoriation from tremors is most common on the extremities, face, chin, knees, and gluteal folds.
 - Applying a medical dressing over the knees and other body surfaces that are being rubbed can be protective.
 - Using mittens to decrease scratching can also be helpful.
 - Avoid friction with cleansing. Do not use harsh wipes.
 - Use only water for cleansing; a sitz bottle works well.
 - Use gentle patting to dry.
 - Apply a no-sting barrier to areas of skin breakdown.
 - Apply a skin protectant to areas of skin breakdown.
 - Leave areas of skin breakdown open to air as much as possible.
 - Treat areas of breakdown for at least 24 hours.
 - Teach parents proper skin care techniques.

Eat, Sleep, Console Guidance and Training Tools:

- [Eating, Sleeping, Consoling Instruction Manual](#)
- [Eat, Sleep, Console Provider Education – Swedish \(45 min\)](#)
- [California Health Care Foundation Webinar, Matthew Grossman Eat/Sleep/Console \(1hr.\)](#)
- [Eat, Sleep, Console Patient-Centered Video - Spokane Regional Health District](#)

Resources

- [Implement a non-pharmacologic bundle of care for NAS for medical staff and parents to follow](#)
- [Develop guidelines for inpatient monitoring of newborns managed with a non-pharmacologic bundle of care](#)
- [Prioritize measurement of functional impairment as a basis for initiation and escalation of pharmacologic treatment](#)
- [If pharmacotherapy is indicated, consider a trial of morphine every 3 hours PRN as an initial strategy for the treatment of NAS instead of scheduled dosing or more long-acting pharmacotherapy options](#)
- [Consider methadone as first-link pharmacotherapy for the treatment of NAS following evaluation of its benefits/risks](#)
- [Consider clonidine instead of phenobarbital as a potential second line/adjunctive therapy for NAS](#)
- [Develop guidelines for inpatient monitoring of newborns receiving morphine, clonidine, or methadone pharmacotherapy prior to discharge](#)
- [Establish a pharmacotherapy weaning protocol](#)
- [WSHA Admin Day Rate FAQ](#)

References

Toolkit adapted from the [CMQCC Toolkit](#)

- Welle-Strand GK, Skurtveit S, Jansson LM, Bakstad B, Bjarko L, Ravndal E. Breastfeeding reduces the need for withdrawal treatment in opioid- exposed infants. *Acta Paediatr.* 2013;102(11):1060- 1066. doi: 10.1111/apa.12378.
- Grossman MR, Berkwitt AK, Osborn RR, et al. An initiative to improve the quality of care of infants with neonatal abstinence syndrome. *Pediatrics.* 2017;139(6): e20163360. doi: 10.1542/peds.2016-3360.
- Wachman EM, Grossman M, Schiff DM, et al. Quality improvement initiative to improve inpatient outcomes for neonatal abstinence syndrome. *J Perinatol.* 2018;38(8):1114-1122. doi: 10.1038/s41372-018-0109-8.
- Wiles JR, Isemann B, Ward LP, Vinks AA, Akinbi H. Current management of neonatal abstinence syndrome secondary to intrauterine opioid exposure. *J Pediatr.* 2014;165(3):440–446. doi:10.1016/j.jpeds.2014.05.010.
- Abdel-Latif ME, Pinner J, Clews S, Cooke F, Lui K, Oei J. Effects of breast milk on the severity and outcome of neonatal abstinence syndrome among infants of drug-dependent mothers. *Pediatrics.* 2006;117(6):e1163-1169. doi: 10.1542/peds.2005-1561.
- Jansson, L, Choo R, Melez M, et al. Methadone maintenance and breast feeding in the neonatal period. *Pediatrics.* 2008;121:106-114. doi: 10.1542/peds.2007-1182.
- Reece-Stremtan S, Marinelli KA. ABM clinical protocol #21: guidelines for breastfeeding and substance use or substance use disorder. *Breastfeed Med.* 2015;10(3):135-41. doi: 10.1089/bfm.2015.9992.
- Buprenorphine. *Drugs and Lactation Database (LactMed).* <https://www.ncbi.nlm.nih.gov/books/NBK501202/>. Accessed December 19, 2019.
- McQueen K, Taylor C, Murphy-Oikonen J. Systematic review of newborn feeding method and outcomes related to neonatal abstinence syndrome. *J Obstet Gynecol Neonatal Nurs.* 2019;48(4):398-407. doi: 10.1016/j.jogn.2019.03.004.
- Wu D, Carre C. The impact of breastfeeding on health outcomes for infants diagnosed with neonatal abstinence syndrome: a review. *Cureus* 2018;10(7):e3061. doi: 10.7759/cureus.3061.