Mother & Baby Substance Exposure Toolkit

Best Practice No. 5

A part of the California Medication Assisted Treatment Expansion Project

This version was published on 2023-09-15

cpqcc
california perinatal
quality care collaborative

CMQCC
California Maternal
Quality Care Collaborative

HMA
INSTITUTE
ON
ADDICTION

Identify substance-exposed newborns

Best Practice No. 5

Nursery/NICU and Screening, Assessment and Level of Care Determination

Overview

- Substance use disorder (SUD) during pregnancy—whether involving illicit, legal, or prescription drugs—is an issue critical to the health of mothers and newborns, and the incidence is increasing in all socioeconomic groups. The examples included below demonstrate the multitude of exposures for mothers, fetuses, and newborns for which appropriate screening (verbal, written), or biologic testing exist.

- The following are some of the substances and syndromes associated with maternal use and/or in utero exposure: opioids (neonatal abstinence syndrome), nicotine, alcohol (fetal alcohol syndrome), methamphetamine, cocaine, serotonin-synaptic reuptake inhibitor (SSRI), serotonin-norepinephrine reuptake inhibitor (SNRI), and marijuana.

Identifying substance exposure during pregnancy requires effective communication within the multidisciplinary team caring for the mother/baby dyad, the best screening methods and assessments to convey information on possible effects, and mobilization of available inpatient, outpatient and community resources to promote good health and bonding.

Why we are recommending this best practice

- Newborn selective (i.e., risk-based) screening policies, including toxicology testing, should be developed in conjunction with the policies of the maternal care team to support a family-centered approach to identification and treatment. These policies should be consistently applied to limit potential bias.

- The results of maternal substance use screening and biological toxicology testing with confirmation provide important information to guide newborn health care providers on appropriate management, specifically if the newborn is demonstrating symptoms consistent with NAS.

Strategies for Implementation

- We recommend that all hospitals with maternity services maintain updated policies and procedures for newborn selective (risk-based) screening policies, based on a family-centered approach which includes the results of maternal screening for substance use (refer to **Best Practice #1** for more information on maternal screening).

- Risk-based screening may consist of items from a detailed prenatal history (including inquiries into prescription and nonprescription drug use), validated maternal SUD screening questionnaires, maternal symptoms, and newborn signs of withdrawal (refer to the References and Resources in this Best Practice for more details).

- Maternal risk is based on the care team's interpretation of verbal screening and, when appropriate, toxicology testing for each patient. If maternal toxicology testing or treatment history has been confirmed, testing of the newborn may not be clinically necessary; however, it is often requested by external agencies such as child protective services (CPS). Education of CPS about the validity of other information can avoid unnecessary and in appropriate use of screening resources.

- Universal biological toxicology testing for the newborn is not recommended, as the specific maternal situation will guide the approach to the newborn.

- The policies for newborn biological toxicology testing (e.g., of urine, meconium, or umbilical cord samples) should reflect a common understanding or written collaborative agreement from each of the following groups: obstetric and newborn medical and nursing staff, hospital-based social work and risk management, and the local/county CPS office.

- Newborn biological toxicology testing may be warranted in certain instances including but not limited to:
    - Mother with limited or no prenatal care
    - Maternal symptoms of drug intoxication or withdrawal that are otherwise unexplained
    - Newborn signs and symptoms of potential substance exposure (i.e., withdrawal) that are otherwise unexplained

- Consent for inpatient neonatal drug testing, may not be required for the purposes of guiding healthcare interventions and follow-up after discharge, and may depend on state specific regulations. However, each healthcare facility should develop its own policy given that most state regulations leave the decision about who should be tested to the health-care provider. Local CPS can neither require testing nor dictate the method of testing in the absence of specific state or federal regulatory requirements (i.e., it may be covered under the facility's general consent).

Baby M

Kayla's opioid use was identified during prenatal care and confirmed in Labor and Delivery through urine testing. This information was communicated to Baby M's providers and prompted them to communicate early with Kayla and to provide her with information on his risk of developing NAS and the potential complications that could arise with a small for gestational age newborn. Baby M's providers knew the importance of establishing a non-judgmental relationship with Kayla and by doing so were able to discuss her prenatal screening results with her, precluding the need to conduct further biological testing to screen Baby M for substance exposure. However, in some medical systems, testing may still be required. If biological testing is performed, urine will give the fastest result but reflects exposure in the prior few days. Meconium and umbilical cord testing will reflect exposure up to several months prior.

Resources

1. State of Vermont Guidelines for Screening for Substance Abuse During Pregnancy.

References

1. Worley J. Identification and management of prescription drug abuse in pregnancy. J Perinat Neonatal Nurs. 2014; 28(3): 196-203. doi: 10.1097/JPN.0000000000000039.
2. Hudak ML, Tan RC. Neonatal drug withdrawal. Pediatrics. 2012; 129(2): e540- 560. doi: https://doi.org/10.1542/peds.2011-3212.
3. Committee opinion no. 633: alcohol abuse and other substance use disorders: ethical issues in obstetric and gynecologic practice. Obstet Gynecol. 2015; 125(6): 1529-1537. doi: 10.1097/01.AOG.0000466371.86393.9b.
4. Bogen DL, Whalen BL, Kair LR, Vining M, King BA. Wide variation found in care of opioid-exposed newborns. Acad Pediatr. 2017; 17(4): 374-380. doi: 10.1016/j.acap.2016.10.003.
5. Stabler M, Giacobbi P, Jr., Chertok I, Long L, Cottrell L, Yossuck P. Comparison of biological screening and diagnostic indicators to detect in utero opiate and cocaine exposure among mother-infant dyads. Ther Drug Monit. 2017; 39(6): 640-647. doi: 10.1097/FTD.0000000000000447.
6. Farst KJ, Valentine JL, Hall RW. Drug testing for newborn exposure to illicit substances in pregnancy: pitfalls and pearls. Int J Pediatr. 2011;2011:951616. doi:10.1155/2011/951616.
7. Price HR, Collier AC, Wright TE. Screening pregnant women and their neonate for illicit drug use: consideration of the integrated technical, medical, ethical, legal and social issues. Front Pharmacol. 2018; 9:961. doi: 10.3389/fphar.2018.00961.
8. Screening for Substance Abuse During Pregnancy: Guidelines for Screening. Vermont Department of Health. http://contentmanager.med.uvm.edu/docs/default-source/vchip-documents/vchip_screening_for_preg_subabuse.pdf?sfvrsn=2. Published 2009.
9. Terplan M, Minkoff H. Neonatal abstinence syndrome and ethical approaches to the identification of pregnant women who use drugs. Obstet Gynecol. 2017; 129(1): 164-167.
10. Understanding CAPTA and State Obligations. National Advocates for Pregnant

Women.
http://advocatesforpregnantwomen.org/CAPTA%20requirements%20for%20states_NAI
Published September 2018.

David Golembeski

MD, FAAP

Dr. David Golembeski is a neonatologist at Rady Children's Hospital-San Diego and a professor of pediatrics at UC San Diego School of Medicine. He is medical director of Rady Children's NICU at Palomar Medical Center and of the NICU at Pomerado Hospital. Dr. Golembeski is a mentor for the CMQCC/CPQCC Mother & Baby Substance Exposure Initiative where he assists hospitals in improving patient-centered care to mothers and babies with substance exposure.

David Kim

MD

Dr. David Kim is Associate Medical Director of the NICU at CHOC at Mission Hospital. He is also the Physician Leader for Quality Improvement in the management of Neonatal Abstinence at CHOC at Mission Hospital, Hoag Hospital, and Pomona Valley Hospital Medical Center.

Helen DuPlessis

MD, MPH

Dr. Helen DuPlessis is a Physician Principal at Health Management Associates.

She has a rich history of involvement in healthcare administration for a variety of organizations, expertise in program and policy development, practice transformation, public health, maternal, and child health policy, community systems development, performance improvement, and managed care. Prior to joining HMA, Dr. DuPlessis served as the chief medical officer with St. John’s Well Child and Family Center. Other notable professional experiences include her work as senior advisor to the UCLA Center for Healthier Children, Families and Communities where she provided leadership, research, program development support, counsel and representation to local, state and national efforts, and community level systems transformation. She also trained and mentored students in various disciplines and educational levels.

Jadene Wong

MD

Dr. Jadene Wong is Clinical Assistant Professor of Pediatrics at Stanford University School of Medicine. She has practiced as a neonatal hospitalist at Lucile Packard Children's Hospital Stanford for more than 10 years, and practiced in primary care outpatient community settings for more than 20 years. She is a member of the task force for the joint CMQCC/CPQCC Mother & Baby Substance Exposure Initiative. She is also the Newborn Clinical Lead for this project and mentors Central California hospitals participating in the initiative.

Robert Castro

MD, FAAP

Dr. Castro is a Board-Certified Pediatric physician with a specialization in Neonatal-Perinatal Medicine. Dr. Castro is currently the Director of the LPCH-affiliated NICU in Monterey County, CA and a Clinical Professor of Pediatrics at Stanford University School of Medicine. He has completed a term as the President of the Southern Society of Pediatric Research and is a Fellow of the American Academy of Pediatrics (AAP). He served on the AAP Perinatal Section Executive Committee and completed a six-year term on the AAP NeoReviews Journal Editorial Board. More recently, he is a member of the CPQCC Advisory Board and in 2016, he was elected to the California Association of Neonatologists Board of Trustees. In 2019, Dr. Castro was selected to serve on the American Board of Pediatrics-Subboard Neonatal Perinatal Medicine.

Vaneet Kalra

MD

Dr. Vaneet Kumar Kalra is a neonatologist and Associate Clinical Professor of Pediatrics (Neonatology) at UC Davis Children's Hospital. He is also the Medical Director of Newborn Medicine at Adventist Health Lodi Memorial Hospital.