Neonatal Abstinence Syndrome and the Pediatric Hospitalist

Adult diseases cause significant pediatric morbidity. Eleven percent of women of childbearing age are current illicit drug users, and 5% of pregnant women self-report drug use during pregnancy, which is no doubt an underestimate of the true prevalence. Opiates are the second most common class of abused drugs, after marijuana. Despite the commonly held belief that most opiates are street drugs, the majority of abusers obtain prescription narcotics from physicians, family members, or friends.

In utero opiate exposure has major negative health consequences for children, including neonatal abstinence syndrome (NAS). A recent national analysis revealed a near tripling of NAS over the last decade, to 3.39 cases per 1000 hospital births. NAS begets significant health care expenditures, with total US hospital charges increasing from $190 to $720 million between 2000 and 2009.

In this issue of Hospital Pediatrics, Forbes et al report findings from a national survey of 179 NICUs and highlight variations in NAS care. Interestingly, only one-half of institutions provide prenatal counseling for at-risk mothers, and a similarly low proportion use maternal toxicology screening to identify at-risk infants. Early identification of prenatal substance abuse with referral to counseling and treatment helps pregnant women initiate recovery and reduces adverse neonatal outcomes.

The authors make an important contribution in describing US NICU practices. However, <1% of the units they surveyed are level I nurseries, and the vast majority of drug-exposed neonates are cared for in level I facilities. Furthermore, we know that postnatal rooming-in is effective in reducing the need for pharmacologic treatment of NAS and decreases the duration of treatment when it is needed. Couplet care of mother and newborn together in the postpartum or pediatric ward setting is likely the ideal solution. Although careful monitoring for pharmacologic overtreatment of NAS is prudent, there should be few barriers to accomplishing this goal outside of an ICU setting. Maintaining maternal–infant contact in this high-risk population is crucial, both for the benefits of skin-to-skin care for physiologic stability and in the bonding needed for psychosocial stability. Rooming-in also facilitates breastfeeding, which is recommended for opiate-dependent mothers who have not been active abusers in the third trimester. Unfortunately, >25% of the NICUs surveyed do not advocate breastfeeding, even though this practice reduces NAS severity, pharmacologic treatment duration, and length of stay.

A large-scale, national NAS quality improvement collaborative is currently underway, but, analogous to the study of Forbes et al, it has its home in neonatology.
In early 2013, the Vermont Oxford Network began a national initiative to improve NAS care and has enrolled close to 200 individual centers and 3 state collaboratives. The Vermont Oxford Network is an admirable organization that can be credited with a tremendous degree of the improvement in neonatal clinical practice over the last 2 decades; it is a master at large-scale quality improvement research. But its focus has been on level III nurseries. If NICUs are not where most opiate-exposed infants are cared for, what are we failing to learn by focusing improvement efforts in that setting?

If we strive to provide evidence-based, family-centered, cost-effective care, we as pediatric hospitalists should fully support NAS screening, diagnosis, and treatment. We know where to best provide rooming-in couplet care in our settings, and how to make systems changes to best serve patients and their families. That is not to say it is easy. One area not addressed in the current study, and only minimally addressed in the literature, is pediatric physician and nursing competence in caring for families with substance abuse disorders. Not emphasized in our training, it is a specialty area of its own. Those of us who chose pediatrics and obstetrics likely had little interest in addiction medicine, and that is why we chose as we did. Finnegan scoring, opiate dose adjustments, and adjunctive medications are relatively easy for us to master, but nonjudgmental communication that provides the right balance of supports and limits to the actively addicted or recovering is not generally in our toolbox. In addition to work on hospital systems to support rooming-in, most of us need to learn new skills from our behavioral health colleagues. If our mission is to provide the best care to the entire inpatient pediatric population, we will readily take on the challenge.

REFERENCES


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