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Improving Tennessee Health Care Providers Understanding of Neonatal Abstinence Syndrome

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IMPROVING TENNESSEE HEALTH CARE PROVIDERS UNDERSTANDING OF NEONATAL ABSTINENCE SYNDROME

Ivy Click, EdD & Nick Hagemeier, PharmD, PhD
AppNExT Conference
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DISCLOSURES

- Drs. Click and Hagemeier DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

OBJECTIVES

- Describe Neonatal Abstinence Syndrome (NAS) trends in Tennessee
- Explain the applicability of the Theory of Planned Behavior to prescriber and dispenser substance use prevention behaviors
- Describe preliminary study outcomes
NEONATAL ABSTINENCE SYNDROME

- Neonatal Abstinence Syndrome (NAS) is a withdrawal syndrome that occurs when a baby is born dependent upon substances taken by the mother during pregnancy.
- NAS can be associated with:
  - Prescription drugs obtained with prescription
  - Includes women on pain therapy or replacement therapy
  - Prescription drugs obtained without prescription
  - Illicit drugs

NAS SYMPTOMS

- Opioid withdrawal symptoms primarily related to:
  - Central Nervous System:
    - Seizures
    - Tremors
    - Hyperactivity
  - Gastrointestinal System:
    - Poor feeding
    - Vomiting
    - Poor weight gain
    - Diarrhea
    - Uncoordinated sucking

NAS SYMPTOMS

- Opioid withdrawal symptoms:
  - May appear as early as within the first 24 hours
  - May take as many as 4-5 days to appear
  - Occur in 55-94% of exposed infants
The incidence of NAS has increased by more than 10-fold during the last decade in Tennessee.

- NAS incidence highest in East TN.
- The substance of exposure is typically an opioid, which may or may not have been prescribed to the mother.
- Babies with NAS have significantly longer hospital stays than otherwise healthy infants and may be at risk for developmental delays or other health concerns as they grow.
- The average cost to Medicaid (TennCare) for caring for an affected infant is over $66,000.
- Infants with NAS are more likely to enter state custody, placing an additional toll on the state’s child welfare system.

**NAS in TN: 1999-2010**

![Graph showing the increase in NAS incidence from 1999 to 2010 in Tennessee.](image)

**Map: Incidence of NAS among TennCare recipients, Q1 2012**

![Map showing the incidence of NAS among TennCare recipients in Q1 2012.](image)
PREVENTION VS. TREATMENT

Maternal substance use prevention
- Appropriate use
- Risk awareness
- Contraception

Maternal substance use treatment
- 4.4% of pregnant women report past month illicit drug use (NSDUH, 2011)
- Withdrawal during pregnancy is not recommended (ACOG, 2012)
- Methadone had been gold standard, but recent evidence supports use of buprenorphine (Jones et al, NLM 2010)
- ~55% of NAS cases in TN report supervised replacement therapy as source of medication
PREVENTION BEHAVIORS ARE ESSENTIALLY UNEXPLORED

STUDY RESEARCH QUESTIONS

- What are the attitudes, beliefs, and behaviors of Tennessee prescribers and dispensers specific to substance use in pregnancy and NAS primary prevention?
- How do prescriber/dispenser perceptions of and behaviors regarding substance use in pregnancy and NAS prevention differ across prescriber/dispenser characteristics?
- What is the impact of a pilot NAS primary prevention academic detailing intervention with AppNET prescribers and buprenorphine prescribers on NAS primary prevention attitudes, beliefs, and behaviors?
METHODS

- TPB instruments constructed
- Stratified random samples selected (N=100 each)
  - Buprenorphine “in-office” treatment authorized
  - Pain management clinic directors
  - Community pharmacists
  - Primary care physicians
  - Primary care NPs/PAs
- Pre-notification → Mailing #1 → Reminder → Mailing #2 → Telephone follow-up

SMALL GROUP ACTIVITY

PRELIMINARY RESULTS
Discuss the risks of opioid use during pregnancy?

- Addiction to opioids?

Discuss the expectation that the patient inform you if she becomes, or plans to become, pregnant?

Obtain a patient's personal history of drug abuse prior to initiating therapy?

Conduct a controlled substance monitoring database (CSMD) query prior to dispensing?

Conduct a drug abuse risk assessment prior to prescribing an opioid medication?

Counsel on the indication for the prescribed medication?

Ask if the patient has questions about the prescribed medication?

Discuss your concern regarding the patient's drug taking behaviors when warranted?

Direct patients to community resources through which long-acting, reversible contraception (LARC) can be accessed?

Direct to community resources through which long-acting, reversible contraception (LARC) can be accessed?

Document the type of contraception used by the patient?

Communicate with the patient's prescriber's office to verify the prescription opioid is appropriate therapy?

Discuss the need to notify the prescriber if the patient becomes, or plans to become, pregnant?

Ask about pregnancy status?

Discuss the patient's pregnancy status at each visit if on long-term opioids?

Discuss the potential of physical dependence to and withdrawal from opioids in a newborn?