

New Clinical Risk Model Predicts Neonatal Abstinence Syndrome (NAS)

Neonatal Abstinence Syndrome (NAS) is a withdrawal syndrome experienced by some opioid-exposed infants after birth



The American Academy of Pediatrics recommends that all opioid-exposed infants be **monitored for withdrawal in the hospital for 4-7 days** after delivery



Risk models may reduce unnecessary hospital stays, cost, and separation from mom by **predicting which infants are at high risk for NAS**

Using TN Medicaid data on maternal-infant dyads from 2009 to 2014, we developed **two models**:

1 A General Population Model



2 A High-Risk Model
Simpler & includes fewer variables

Our model revealed variables that:

PROTECT AGAINST NAS



Lower birth weight

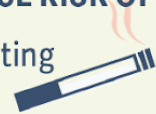


Female Sex

INCREASE RISK OF NAS



Long-acting opioids



Cigarette Use

Other medication use (e.g., SSRIs, antipsychotics, benzodiazepines)



Only a **minority** of opioid-exposed infants were **diagnosed with NAS**

Tens of thousands of **low-risk opioid-exposed infants** may be spending extended periods in hospitals, with *marginal health benefit*.



Using clinical risk models for opioid-exposed infants can help **individualize care**.