Urine and Meconium should be collected from all infants born at UNC Hospitals or admitted in the first 48 hours of life who have ANY of the following risk factors.

Maternal
- History of Drug Abuse\(^1,4,5\)
- Poor Prenatal Care (prenatal care starting after 16 weeks gestation or less than 4 prenatal visits)\(^1,4,5\)
- History of child abuse, neglect or court ordered placement of children outside of the home\(^2,4\)
- History of Domestic Violence\(^4,5\)
- History of hepatitis, HIV, syphilis or prostitution\(^3,4,5\)
- Unexplained Placental Abruption\(^1,4,5\)

Infant
- Infants with unexplained intrauterine growth restriction or small for gestational age\(^1,3,4,5\)
- Infants with evidence of drug withdrawal (hypertonia, irritability or tremulousness)\(^1,4,5\)

Alcohol
- Discuss with obstetrics if acute maternal alcohol intoxication is expected around the time of delivery\(^3,5\)

References


   This study aimed to test the effectiveness of targeted urine drug screening. All infants born June – October of 1991 were included subjected to a urine drug screen. However, infants were prospectively targeted for screening. The criteria for inclusion of newborn infants in targeted urine screening are listed verbatim below.

   - Infants of mother who admit to drug abuse during pregnancy or have had positive results on a urine toxicology screen at any time during pregnancy
   - Infants with signs or symptoms of neonatal abstinence syndrome
   - Infants of mothers who have previously delivered a child with positive results on a neonatal urine toxicology screen
   - Infants whose mothers show physical signs of drug abuse
   - Infants whose mothers demonstrate inappropriate behavior
   - Infants with evidence of intrauterine growth retardation (<10\(^{th}\) percentile for gestational age)
   - Infants with identified renal, cardiac or neurologic congenital anomalies
   - Infants of mothers who did not receive prenatal care

   Of 1013 birthed infants urine drug screens were obtained on 949. Drugs of abuse were found in 64 and targeted screening identified 62 of them. The guidelines I propose for UNC include all of these items except mothers who demonstrate inappropriate behavior, infants with renal, cardiac, or neurologic congenital anomalies and infants whose mothers show physical signs of drug abuse.


   This study cohort consists of all infants from San Mateo County born at Stanford University over a 2 year period whose urine tests in the well-baby nursery were positive for illicit substances. 53 newborns were identified. Characteristics that most strongly predicted failure in family reunification were a history of failed drug rehabilitation, previous involvement of Child Protective Services or previous removal of child because of substance abuse.


   This study prospectively gathered information on 717 cocaine exposed infants and 7442 nonexposed infants. The study found cocaine exposed infants weighed 536g less. The cocaine exposure rate “in the low birth-weight population (<2500g) was more than double that of normal-birth-weight infants (16.7% vs 6.7%).” “[Cocaine] exposed infants had more infections (3.09;1.76-5.45) including hepatitis (13.46; 7.46-24.29), syphilis (8.84; 3.74-20.88) and HIV exposure 12.37; 2.2-69.51.

4. University of Iowa Hospitals and Clinics Protocol
5. University of North Carolina Newborn Critical Care Center Newborn Drug Screen Protocol

Originally created by Ryan Barbaro, MD as part of a senior resident project; April 2001