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## Appendix 4

### NEONATAL RISK FACTORS FOR ADVERSE NEURODEVELOPMENTAL OUTCOME

#### Biologic Factors

##### **Prenatal Factors**

- Maternal PKU or HIV
- Prenatal teratogen exposure (e.g. Dilantin or Valproate)
- Prenatal alcohol or substance abuse
- Major congenital anomalies
- Multiple minor physical anomalies
- Small for gestational age
- Maternal tobacco use
- Lack of prenatal care - risk of prematurity and subsequent developmental disabilities is 3-5 times greater in children born to women who do not receive prenatal care
- Family history of deafness

##### **Perinatal and Postnatal Factors**

- Birth weight 2500 grams or less, especially if less than 1500 grams birth weight
- Respiratory distress requiring mechanical ventilation
- Asphyxia - Apgar score of four or less at 5 minutes
- Neonatal seizures
- Intracranial hemorrhage or periventricular leukomalacia
- Hyperbilirubinemia - levels exceeding need for exchange transfusion
- Microcephaly or macrocephaly (more than 2SD above or below mean)
- Central nervous system infection
- Congenital infection (TORCH)
- Abnormal neonatal neurologic exam
- Failure to thrive

#### Environmental Factors

- Maternal age less than 16 years
- Parental mental retardation
- Parental psychiatric disorder
- Parental alcohol or substance abuse
- Lack of permanent housing
- Inadequate care giving
- History of abuse or neglect in parent or sibling
- Extreme poverty