



Clinical MCH-NICU Guideline

MCH NICU Guidelines for Brain Ultrasound Screening in Preterm Infants

Group A	<u>Low risk for ultrasound-detected brain injury</u> * Well infants born between 29^{0/7} and 31^{6/7} weeks gestation (GA)
	ONE STUDY
US Timing	At 5 weeks postnatal age, or 36 weeks corrected GA (CGA), or prior to discharge from MCH (whichever comes first)
Group B	<u>Intermediate risk for ultrasound-detected brain injury</u> * Well infants born at <29 weeks GA ** Sick infants born between 29^{0/7} and 31^{6/7} weeks GA
	TWO STUDIES
US Timing	1. First study at 10 to 14 days of age 2. Second study at 5 weeks postnatal age, or prior to discharge from MCH (whichever comes first)
Group C	<u>High risk for ultrasound-detected brain injury</u> ** Sick infants born at <29 weeks GA
	THREE STUDIES
US Timing	1. First study at 3 to 5 days of age 2. Second study at 10 to 14 days of age 3. Third study at 5 weeks postnatal age, or prior to discharge from MCH (whichever comes first)

* **Well infants** = No inotropic support, mechanical ventilation or CPAP with FiO₂<50%, no evidence of major organ failure in first 7 days

** **Sick infants** = Delivery room intubation, inotropic support, repeated volume expansion, mechanical ventilation or CPAP with FiO₂ > 50%, early onset sepsis, evidence of major organ failure in the first 7 days

NOTE 1. If a head ultrasound reveals abnormal findings, the frequency of follow-up exams is left to clinical judgement. See post-hemorrhagic ventricular dilatation guidelines for further recommendations.

NOTE 2. A normal head ultrasound does not guarantee normal long term neurodevelopment, follow up recommendations and referral to neonatal follow clinic should also be based on clinical risk factors and physical exam

NOTE 3. If patient develops severe illness following the last imaging study (e.g., culture proven sepsis or NEC with instability), consider repeat imaging 4-6 weeks after the event