



GUIDELINE

Neuroimaging for the Preterm Infant

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

Outline the criteria for neuroimaging for the preterm infant in the neonatal unit and on discharge.

Risk

Without early identification of risk factors, opportunities for early intervention may be missed which may impact the infant's care plan or development.

Cranial Ultrasound

Indications

- Prematurity (routine screening) gestation <32 weeks
- Can be considered:
 - unknown gestation in preterm infants
 - in preterm infants >32 weeks if:
 - neurological abnormalities (e.g. seizures)
 - antenatal abnormalities (e.g. arachnoid cysts)
 - hypoxic ischaemic encephalopathy
 - other congenital abnormalities
 - congenital or acquired Central Nervous System (CNS) infections (e.g. calcification, ventriculitis, abscess)
 - coagulopathy or significant thrombocytopenia

Screening Frequency:

Timing of scan	<27 weeks	27-32 weeks	Hypoxic Ischaemic Encephalopathy/ abnormal neurological examination/ syndromes
Day 1-4	✓	preferable	✓
Day 4-7	optional	✓	optional
Day 28	✓	✓	optional

Further scans may be requested depending on findings e.g. Post haemorrhagic ventricular dilatation (PHVD), Periventricular leucomalacia (PVL), evolving Germinal matrix-intraventricular haemorrhage (GMH-IVH), persistent neuro exam abnormalities


Magnetic Resonance Imaging (MRI) Brain

MRI should be performed at term equivalent (>38 weeks) for all babies born at <28 weeks, with parental consent.

Discharge or Transfer planning

- Ideally MRI scans should be performed as inpatients.
- Ensure any scans that have been carried out are reviewed prior to discharge or transfer.
- Discuss with consultant whether to bring scan forward if discharge or transfer is approaching
- Many back-transfer hospitals can conduct head ultrasounds, please liaise with discharge coordinators to ensure this has been arranged.
- Metropolitan and country infants are to have an outpatient appointment made to coincide with follow-up and/or other appointments to obtain results of the MRI scan.
- Ensure parents are aware of all results/appointments.

This document can be made available in alternative formats on request.

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