

## INTERNATIONAL TRENDS IN NEUROIMAGING IN NEONATAL ENCEPHALOPATHY

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**Background:** Imaging in neonatal encephalopathy (NE) is useful in predicting outcome, withdrawing care and excluding other causes of NE. There is little consensus about timing and ideal imaging modality.

**Aim:** To compare practice variations in the use of neuroimaging in NE.

**Method:** Web based anonymous survey questionnaire, was sent to neonatal trainees across 9 countries participating in the European neonatal online training.

**Results:** There were 20 responses. 16/19 units performed cranial ultrasounds either on admission or day 1; twelve on day 3; ten weekly or fortnightly till discharge; fourteen at discharge and five post discharge. 3 units did not have a specific protocol. Views through the anterior fontanelle were routinely performed in all units and 8/19 also performed through posterior fontanelle and mastoid. 11/19 ultrasounds were performed by the neonatal consultants, in 5 units by radiologists and in 3 units only by neonatal trainees. Magnetic resonance imaging (MRI) was only performed routinely in 9/18 units. Early MRI (< 5 days) was done in 2 units and in 15 between 5-14 days. T1 and T2 weighted axial sequences were routinely obtained in 10 and 2 units respectively. One unit had a perinatal radiologist reporting MRI, 12 were reported by paediatric radiologists. Repeat MRIs were not done in 4 units. 14/18 of the trainees felt that MRI should be routinely performed in NE although this was not done in their neonatal unit.

**Conclusions:** Neonatal units internationally worldwide followed different practices with regards to imaging in NE.