

Lecturer – Title

Objective

Gerda Meijler

Basic and normal anatomy	To describe the anatomy of the neonatal brain from an ultrasound perspective
Use of the US machine and understanding of the function of the controls and probes	To describe how to use the ultrasound equipment for good quality ultrasonography of the neonatal brain
US imaging of preterm brain injury	To distinguish the basics of the most frequently occurring and important forms of brain injury in the preterm infant
US imaging of brain maturation: normal findings versus pathological changes	To recognize normal maturational phenomena in the neonatal brain and differentiate these from pathological changes

Sylke Steggerda

cUS in the term infant admitted with early neurological symptoms – hypoxic-ischemic encephalopathy and stroke	To recognize the main patterns of brain injury on ultrasound in newborn infants with hypoxic-ischemic encephalopathy and stroke and the evolution of their appearance over time
Doppler blood velocity measurements, practical aspects	To list reasons to perform Doppler ultrasound and apply changes in settings to perform velocity measurements
The neonatal cerebellum: normal development and injury	To describe the anatomy and vulnerability of the neonatal cerebellum, recognize the most common brain lesions in the cerebellum, and apply ultrasound using additional windows
Ultrasound Doppler: technical and clinical aspects of measurements and vessel anatomy	To describe the normal arterial and venous cerebral vessel anatomy as visualized with cranial ultrasound and assess common vascular anomalies
Assessing asphyxial damage in the term infant	To describe the role of both early and follow-up ultrasound scanning and of MRI for outcome prediction in infants with hypoxic-ischemic encephalopathy, and assess common brain lesions associated with hypoxic-ischemic encephalopathy

Frances Cowan

Term infants with later seizure onset and/or less acute problems	To list the broad range of issues that may cause neurological problems in newborn infants that do not necessarily present at or within a few hours of birth
Practical aspects of reporting and talking to parents	To describe strategies on how to form an opinion on ultrasound findings as a beginner and disclose findings with parents
Metabolic disease, tumours and neurocutaneous disorders	To apply an evidence-based approach to less common conditions that may be diagnosed through findings on neonatal cranial ultrasound
Term focal lesions	To describe the aetiology, presentation and outcomes of perinatal stroke from a neonatal imaging perspective

Linda de Vries

Preterm: haemorrhage, post-hemorrhagic ventricular dilatation and outcome	To describe the aetiology, presentation and outcomes of germinal matrix-intraventricular hemorrhage using ultrasound and MRI
Preterm: white matter injury	To describe the aetiology, presentation and outcomes of white matter injury using ultrasound and MRI
Congenital abnormalities	To recognize the most common congenital anomalies in the newborn based on cranial ultrasound and MRI
Sinus venous thrombosis and associated lesions	To describe the presentation of sinovenous thrombosis in the newborn and to recognize this condition using ultrasound and MRI
Infections	To identify the most common cranial ultrasound and MRI findings in the newborn who present with a bacterial or viral infection

Zarina Assis

MRI in neonatal brain imaging	To list the indications for performing brain MRI in newborn infants in addition to cranial ultrasound and recognize most common neonatal brain lesion types on MRI
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Lara Leijser

How to perform ultrasound measurements	To apply measurements of brain structures from cranial ultrasound and describe their added value for prognostication
Neonatal cranial ultrasound imaging protocols: why and when	To establish cranial ultrasound protocols based on local available infrastructure and resources and neonatal population of interest