

NEUROLOGY PROTOCOLS

PAEDIATRIC ISCHAEMIC

CLINICAL INDICATIONS	Known or suspected vascular infarct/lesion in the brain and possible neck vessel anomalies/dissection	
PATIENT PREPARATION	MRI safety checklist completed and checked. Changed into patient gown. NBM at least 2 hours unless requiring general anaesthetic. Contrast consent performed incase required. Hearing protection with headphones and/or earplugs. Emergency buzzer is essential.	
PATIENT SET-UP	POSITION	Supine, head first. Immobilise using foam pads around the head and over ears.
PATIENT SET-UP	COIL/S	32Ch Head Coil ideally if head only 12Ch Head Coil and 4Ch Neck/Spinal for neck vessels
IMAGING PROTOCOL	SEQUENCES	RANGE AND ORIENTATION
IMAGING PROTOCOL	3 Plane Localiser	Localiser through Head
IMAGING PROTOCOL	t1_mpr_sag_p2_iso_	Sagittal to the midline to cover the whole head
IMAGING PROTOCOL	t2_tse_tra_512_	Inferior to superior, to cover whole head, parallel to ACPC line and perpendicular to midline/base of temp lobes on the coronal
IMAGING PROTOCOL	t2_tirm_tra_dark-fluid_fs	Inferior to superior, to cover whole head, parallel to ACPC line and perpendicular to midline/base of temp lobes on the coronal
IMAGING PROTOCOL	ep2d_diff_3scan_trace	As per the t2_tse_tra
IMAGING PROTOCOL	t2_tse_cor_512	Angled perpendicular to the AC-PC on sagittal plane and perpendicular to midline on axial.
IMAGING PROTOCOL	t2_fl3d_tra_p2_swi_fast	Angle as per axial T2-ensure whole of head covered.
IMAGING PROTOCOL	3D TOF_MRA_COW	Axially to cover the Circle of Willis
IMAGING PROTOCOL		<i>REVIEW FOR CONTRAST</i>
IMAGING PROTOCOL	t1_mpr_sag_p2_iso_+C	Sagittal to the midline to cover the whole head as per pre

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CONTRAST MEDIA	Type	Dotarem
	Volume	0.2ml/kg on 3T
	Administration	IV slow hand injection
	Test Bolus	N/A
	Flow Rate	N/A
	Timing	N/A
	Delayed Imaging	N/A

OPTIONAL SEQUENCES	<p>3D TOF_MRA_Whole Brain if lesion higher</p> <p>Neck Vessels: Localiser neck F140 Vessels_neck (low res 2D for planning) TOF_3D_multi-stack_neck (3d block to cover from arch to base of skull)</p>
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POST PROCESSING	<p>Reformat mprage sequence into 2 other planes at a slice thickness of 1mm</p> <p>Reformat the TOF angiogram into mips and send through to PACs.</p>
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SPECIAL CONSIDERATIONS	<p>Ensure suspected location (which may be high) is covered in MRA</p> <p>Slice thickness, FOV and slice number are dependent on the age of the child. Different protocols for different ages are set up on the scanner.</p> <p>Younger children not being scanned under general anaesthetic may require a parent or guardian in the room. All accompanying people must complete a separate safety questionnaire and go through all safety checks as per the patient.</p> <p>Small children may require to be scanned under General Anaesthetic</p>
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