Radiology of Indiana

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Protocols	.7/ 1.2/ 1.5T	3.0 T	Special Instructions/Comments
	** All Sagittals, please so	can from patients Left to Right **	
Brachial Plexus (bilateral)	Coronal T1 TSE (3sk1)	SAME	For Bilateral Brachial Plexus
	Coronal T1 TSE (3sk1) Axial T1 TSE (3sk1)	SAME	For Bitateral Brachnal Plexus scan shoulder to shoulder
	Axial 11 15E (38k1) Axial STIR (38k1)		FOV= 25cm preferred: 32cm as needed
	Sagittal T1 TSE (3s1)		104 – 25cm protenca. 52cm as needed
	Sagittal STIR (3sk1)		
	Coronal STIR (3sk1)		
	Axial C+T1 fat sat		
	Coronal C+T1 fat sat		
Brachial Plexus (unilateral)	C INTERCOLOUS	CANTE	
	Coronal T1 TSE (3sk1) Axial T1 TSE (3sk1)	SAME	For unilateral Brachial Plexus, Scan far transverse process through shoulder (i.e. for LEFT brachial Plexus, Start at RIGHT C7 transverse process)
	Coronal STIR (3sk1)		EO2=1 Oracina riesus, state at Kroffi C7 transverse process) FO2=25cm
	Sagittal T1 TSE (3sk1)		101-22011
	Sagittal STIR (3sk1)		
	Axial STIR (3sk1)		
	Axial C+T1 fat sat		
	Coronal C+T1 fat sat		
7			
Brain Cancer	Cin-l Tl TCF (4-b1)	Cin-LTLETAID (2-l-1)	Demons ADC from all protects to health which ADC
	Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1)	Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1)	Remove eADC from all protocols, should only do ADC
	Axial T1 TSE (4sk1) Axial T2 GRE (4sk1)	Axial T1 FLAIR (3sk1) SWI (3sk1) with Mis	Inject contrast, followed immediately by Axial T2 Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time
	Axial 12 GRE (4sk1) Axial DWI/ADC (3 Direction if possible), reconstruct at 5sk0	Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0	Asia and Corona Contrast Children 118 to toriow 12 to drow Contrast Circulation HIRE
	Axial FLAIR (4sk1)	Axial FLAIR (3sk1)	Scan through whole brain (skull to skull) on sagittal images
	Axial C+ T2 TSE (4sk1)	Axial C+ T2 TSE (3sk1)	
	Axial C+ T1 TSE (4sk1)	Axial C+T1 FLAIR (3sk1)	FOV=23cm
	Coronal C+ TSE (4sk1)	Coronal C+FLAIR (3sk1)	
	Sagittal C+ T1 TSE (4sk1)	Sagittal C+ T1 FLAIR (3sk1)	
	Axial C+ T1 MPRAGE volumetric	Axial Volumetric (MPRAGE or equivalent) with 3-plane reformat	
	Sagittal and coronal reformats	See if Perfusion/Spectroscopy needed	
	Possible Perfusion/Spectroscopy?		
	Should be done on 3T if possible		
	** Proin Concer protocol used for nations that have had a known brain loss	ion (including post surgical/post treatment lesions), lesion seen on another study	(i.e. CT Head) or any potion with a surrout dy of casear
	suspected cancer, or history of cancer for which metastatic disease to the br		(i.e. C.) Hearly, or any panetic with a current ux or cancer,
	suspected cancer, or mistory of cancer for which means are discuss to the or	an a being evaluated	
MRI Brain (Contrast Clearance Analysis)			
ATEL DI am (Contrast Clearance Analysis)			
AIM DI am (Contrast Clearance Analysis)	3D T1-weighted (MPRAGE, FSPGR, VIBE, SPACE, etc.)	:	
AIXI Di ani (Conti ast Clearance Anaiysis)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	: 5 minutes post Gad	* It is important that the early time point is at a fixed time post-Gd injection, therefore, it is best to acquire it after a fixed protocol, e.g., after DSCMRI and 2D spin-echo or after DCE-MRI.
AIM Drain (Contrast Creatance Analysis)		: 5 minutes post Gad 60 - 105 minutes post Gad (patient can leave between both scans)	* It is important that the early time point is at a fixed time post-Gd injection, therefore, it is best to acquire it after a fixed protocol, e.g., after DSCMRI and 2D spin-echo or after DCE-MRI. The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd.
ATAL DEATH (CORE AS CREATABLE ARMYSIS)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd.
JAM DI AIII (COIII ASI CICATARIC ARAIJSIS)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)		
otan di ani (comi asi Cicarance Analysis)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd.
JIM DI BIH (CORII BY CICETIBIC ARBIYSIS)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * T1-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.).
JIM DI BIH (CORII BY CICETIBIC ARBIYSIS)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required.
JAM DI ani (Conu ast Clearance Analysis)	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * T1-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.).
MKI Brain (Contrast Clearance Analysis) Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.)	60 - 105 minutes post Gad (patient can leave between both scans)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * T1-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.).
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. *IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. *Tl-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). *Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAR (3sk1) Axial T1 FLAR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * T1-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast, followed immediately by Axial T2
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. *IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. *Tl-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). *Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC laject contrast, followed immediately by Axial TZ 2 Scan Through whole brain (skull to skull) on sagittal images
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MIPS	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * T1-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast, followed immediately by Axial T2
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial DWADC (3 Direction if possible), reconstruct at 5sk0	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAR (3sk1) Axial T1 FLAR (3sk1) Axial T2 T3E (3sk1) SWI (3sk1) with MIPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. *IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. *TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). *Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast. followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T4 GRE (4sk1) Axial T4 GRE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MPS Resolve or 6-Direction DWFADC, reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. *IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. *Tl-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). *Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC laject contrast, followed immediately by Axial TZ 2 Scan Through whole brain (skull to skull) on sagittal images
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T3 GR (4sk1) Axial T4 GR (4sk1) Axial T4 TSE (4sk1) Axial T5 GR (4sk1) Axial T4 TSE (4sk1) Axial T5 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images
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	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MIPS Resolve or 6-Direction DWI ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+ T2 TSE (3sk1) Axial C+ T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MIPS Resolve or 6-Direction DWI ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+ T2 TSE (3sk1) Axial C+ T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images
	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 GRE (4sk1) Axial T3 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Coronal C+ TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal Ti FLAR (3sk1) Axial Ti FLAR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MIPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0 Axial FLAR (3sk1) Axial C+ T2 TSE (3sk1) Axial C+T1 FLAR (3sk1) Coronal C+FLAR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC light contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MPS Resolve or 6-Direction DWIADC, reconstruct at 4sk0 Axial C4 T2 TSE (3sk1) Axial C+ T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Axial T2 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAR (3sk1) Axial T1 FLAR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0 Axial FLAR (3sk1) Axial C+T1 TSE (3sk1) Axial C+T1 TSE (3sk1) Axial C+T1 FLAR (3sk1) Coronal C+FLAR (3sk1) Sagittal T1 FLAR (3sk1) Axial T1 FLAR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T3 GRE (4sk1) Axial T3 GRE (4sk1) Axial T3 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DWLADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+ T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC light contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Sagittal T1 TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) SAGITT FLAIR (3sk1) Axial T2 TSE (3sk1) Axial T3 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T3 GRE (4sk1) Axial T3 GRE (4sk1) Axial T3 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DWLADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+ T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T1 FLAIR (3sk1) Axial T2 TSE (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast, followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Axial C+ T1 TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1) Axial T2 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAR (3sk1) Axial T1 FLAR (3sk1) Axial T2 TSE (3sk1) SWI (3sk1) with MIPS Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0 Axial FLAR (3sk1) Axial C+T1 TSE (3sk1) Axial C+T1 FLAR (3sk1) Coronal C+FLAR (3sk1) Sagittal T1 FLAR (3sk1) Sagittal T1 FLAR (3sk1) Sagittal T1 FLAR (3sk1) Sigittal T1 FLAR (3sk1) Sigittal T1 FLAR (3sk1) Sigittal T1 FLAR (3sk1) Axial T2 TSE (3sk1) SwI (3sk1) with MIPS Resolve or 16-direction DWI/ADC reconstruct at 4sk0	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast., followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial DWIADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAR (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T3 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0. Immol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC Inject contrast. followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images
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Brain With	3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) 3D T1-weighted C+ (MPRAGE, FSPGR, VIBE, SPACE, etc.) Sagittal T1 TSE (4sk1) Axial T1 TSE (4sk1) Axial T2 GRE (4sk1) Axial T2 GRE (4sk1) Axial T3 GRE (4sk1) Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1) Coronal C+ TSE (4sk1) Axial C+ T1 TSE (4sk1) Axial T1 TSE (4sk1)	60 - 105 minutes post Gad (patient can leave between both scans) FOV = 23 all sequences Sagittal T1 FLAIR (3sk1) Axial T2 FLAIR (3sk1) Axial T2 TSE (3sk1) SW1(3sk1) with MIPS Resolve or 6-Direction DW1ADC, reconstruct at 4sk0 Axial FLAIR (3sk1) Axial C+T2 TSE (3sk1) Axial C+T2 TSE (3sk1) Coronal C+FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sagittal T1 FLAIR (3sk1) Sw1 (3sk1) T1 FLAIR (3sk1) Sw1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1) SW1 (3sk1) with MIPS Resolve or 16-direction DW1ADC reconstruct at 4sk0 Axial FLAIR (3sk1)	The timing of the late time point is flexible and can change from one follow-up to the next as long as it is acquired between 60-105 min post Gd. * IV bolus injection of a Gd-based contrast agent (standard dose, 0.1mmol/kg) is required. * TI-weighting of the MRI sequence does not change between the two acquisitions; thus the exact same protocol should be used for both scans (same FOV, slab size, etc.). * Poor image quality or metal-induced artifacts may affect the interpretation s Remove eADC from all protocols, should only do ADC linject contrast. followed immediately by Axial T2 Scan Through whole brain (skull to skull) on sagittal images Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time Scan through whole brain (skull to skull) on sagittal images FOV=23cm Remove eADC from all protocols Scan Through whole brain (skull to skull) on sagittal images

	Obl Cor T1 TSE Fat Sat +C (3sk1) Obl Ax T1 TSE Fat Sat +C (3sk1)	Obl Cor T1 TSE Fat Sat +C (3sk1) Obl Ax T1 TSE Fat Sat +C (3sk1)	
	Obl Coronal STIR (3sk1)	Obl Coronal STIR (3sk1)	
	Obl Coronal T1 TSE (3sk1)	Obl Coronal T1 TSE (3sk1)	Pranes should be relative to long axis of the sacrum Axial images L5 - bottom of sacrum
	Obl Axial T1 TSE (3sk1) Obl Axial T2 TSE mid TE fat sat (3sk1)	Obl Axial T1 TSE (3sk1) Obl Axial T2 TSE mid TE fat sat (3sk1)	FOV = 25 cm Planes should be relative to long axis of the sacrum
Lumbosacral Plexus			
	Sagittal DWI (3/0.5)	Sagittal DWI (3/0.5)	
	Coronal T1 TSE (3sk0.5)	Coronal T1 TSE (3sk0.5)	
	Axial T2 TSE (4sk1) Axial T1 TSE (4sk1)	Axial T2 TSE (3sk0.5) Axial T1 FLAIR (3sk0.5)	
	Sagittal STIR (3sk0.5)	Sagittal STIR (3sk0.5)	
	Sagittal T1 TSE (3sk0.5) Sagittal T2 TSE (3sk0.5)	Sagittal T1 FLAIR (3sk0.5) Sagittal T2 TSE (3sk0.5)	Axial Images from L1-S1 FOV=15cm Axials
Lumbar Without	0. 19 179 700 (2.10.5)	G SWITTING COLORS	1.11
	Sagittal C+T1 TSE (3sk0.5)	Sagittal C+ T1 FLAIR (3sk0.5)	
	Axial C+T1 fat sat (4sk1)	Axial C+ T1 fat sat (3sk0.5)	
	Coronal 11 ISE (38k0.5) Sagittal DWI (3/0.5)	Sagittal DWI (3/0.5)	
	Axial T1 TSE (4sk1) Coronal T1 TSE (3sk0.5)	Axial T1 TSE (4sk1) Coronal T1 TSE (3sk0.5)	
	Axial T2 TSE (4sk1)	Axial T2 TSE (4sk1)	
	Sagittal STIR (3sk0.5)	Sagittal STIR (3sk0.5)	I COLLINATION
	Sagittal T1 TSE (3sk0.5) Sagittal T2 TSE (3sk0.5)	Sagittal T1 TSE (3sk0.5) Sagittal T2 TSE (3sk0.5)	No fat saturation if excessive artifact from metal hardware FOV: 15cm Axials
Lumbar With	Cin-1 T1 TCE (2-10 5)	Cin-LTL TCE (2-l-0.5)	No fact administrative if the control of the form model bands are
	Coronal 11 1312- utoracorumbar (3880.3)	Coronar 11 1312- moracorumbar (3880.3)	
	Sagittal STIR -thoracolumbar (3sk0.5) Coronal T1 TSE- thoracolumbar (3sk0.5)	Sagittal STIR -thoracolumbar (3sk0.5) Coronal T1 TSE- thoracolumbar (3sk0.5)	
	Sagittal T2 TSE-Lumbar (3sk0.5)	Sagittal T2 TSE-Lumbar (3sk0.5)	
	Sagittal T1 TSE -Lumbar (3sk0.5)	Sagittal T1 FLAIR -Lumbar (3sk0.5)	
	Sagittal T1 TSE- thoracic (3sk0.5) Sagittal T2 TSE- thoracic (3sk0.5)	Sagittal T1 FLAIR- thoracic (3sk0.5) Sagittal T2 TSE- thoracic (3sk0.5)	
	Localizer including cervical and upper thoracic spine Sagittal T1 TSE- thoracic (3sk0.5)	Localizer including cervical and upper thoracic spine Sagittal T1 FLAIR- thoracic (3sk0.5)	
Kyphoplasty			
	Coronal C+ T1 fat sat (2sk0)		
	Axial C+ T1 fat sat (2sk0)		
	Axial T2 (2sk0)		
	Sagittal reformats along IAC		
	Coronal HASTE Diffusion Coronal reformats		Scan from posterior skull through orbital apex on coronals
	Axial FIESTA 1mm		
	Axial T1 (2sk0)		Scan from tip of the dorsum Sella through C1 on axials
	Posterior fossa :		
IAC	Preferably with Brain WITH	SAME	FOV= 15-18cm
IAC			1
<u>-</u>	Ax DWI (3/1)		
	Sag T1 SE (3/1)		
	Ax T2 Fat Sat (3/1)		
	Cor S Tik (3/1) Ax T1 (3/1)		I OT - IT OAIM
	Cor T1 (3/1) Cor STIR (3/1)	SAME	FOV= 16 for Cor and Sag FOV= 14 Axial
Face	G. THOM	CAME	TOW. 166. 0
	Sagittal DWI (3sk0.3)	Sagittal DWI (3sk0.3)	
	Axial GRE (3sk0)	Axial GRE (3sk0)	
	Axial T2 TSE (2sk0)	Axial T2 TSE (2sk0)	
	Sagittal T2 oblique (2sk0)	Sagittal T2 oblique (2sk0)	Sagittal oblique T2 = Align perpendicular to the neural foramen
	Sagittal T2 TSE (3sk0) Sagittal STIR (3sk0)	Sagittal T2 TSE(3sk0) Sagittal STIR (3sk0)	Axial images should be from C2 through T1
	Sagittal T1 TSE (3sk0)	Sagittal T1 FLAIR (3sk0)	FOV=12cm on Axials: FOV = 20cm on Sagittal Axial lies about the feed of the part of the pa
	Coronal T1 TSE (3sk 0.5)	Coronal T1 TSE (3sk 0.5)	Could do foraminal oblique reformats off axial T2
Cervical Without			
	Sagittal C+T1 TSE (3sk0)	Sagittal C+ T1 FLAIR (3sk0)	
-	Axial C+ T1 fat sat (3sk0)	Axial C+ T1 fat sat (3sk0)	
	Precontrast Axial T1 TSE (3sk0)	Precontrast Axial T1 FLAIR (3sk0.3)	
	Sagittal DWI (3sk0.3)	Sagittal DWI (3sk0.3)	
	Axial T2 TSE (2sk0) Axial GRE (3sk0)	Axial T2 TSE (2sk0) Axial GRE (3sk0)	
	Sagittal T2 oblique (2sk0)	Sagittal T2 oblique (2sk0)	Sagittal oblique T2 = Align perpendicular to the neural foramen
	Sagittal STIR (3sk0)	Sagittal STIR (3sh0)	
	Sagittal T2 TSE (3sk0)	Sagittal T2 TSE (3sk0)	Scan from C2 through T1
	Coronal T1 TSE (3sk 0.5) Sagittal T1 TSE (3sk0)	Coronal T1 TSE (3sk 0.5) Sagittal T1 TSE (3sk0)	FOV= skull base through upper T-spine on sagittal FOV=12cm on Axials: FOV = 20cm on Sagittal

MR Perfusion	Power injection bolus before C+ images in conjunction with		If performing Brain Tumor WITH or MS, spectroscopy, offer MR Perfusion	
	Brain Tumor WITH		Inject half the contrast prior to obtainin the DSC perfusion EPI sequence	
	Standard color reformats		After perfusion, inject remaining contrast to obtain the standard post contrast	
			Bolus injection 4 mL/s	
MR Spectroscopy				
ик эреспосору	Axial T2 TSE whole brain for localizer		MR Spectroscopy should only be scheduled/	
	Single Voxel		Performed with Neuro Rad in house -plan both	
	Multivoxel- shim to borders of ROI		Single and multi voxels with Neuro Rad	
			Selection of multi voxel send to PACS with Neuro Rad	
MRA Brain				
	3D TOF	SAME		
	COW reformats			
	Anterior circulation reformats			
	Posterior circulation reformats Axial, sagittal, and coronal MIPs			
	ratus, sugarus, una corona rati s			
MRA Carotid With	-			
	Survey	SAME	Contrast MRA should be performed if ordered Also perform if MRI Brain WITH is ordered in	
	Auto-trigger Arterial		Conjunction with MRA neck (in addition to TOF)	
	Venous			
	Arterial and venous MIP reconstructions			
	Arterial right and left carotid and vertebral reconstructions			
MRV Carotid Without				
	2D TOF	3D TOF multi-slab with recons	Cover aortic arch through basilar on axial images	
	Right carotid, left carotid, and vertebral reformats	Axial T1 fat sat (4sk0.5)		
	If dissection possible : Axial T1 fat sat (4sk 0.5)			
	Axiai 11 fat Sat (48k U.5)			
MRV with Contrast				
	Phase contrast MRV (VENC 10-15)	SAME		
	2D TOF Axial and Coronal MPRAGE			
	WINAGE			
MS Brain				
	Sagittal T1 TSE (4sk1)	Sagittal T1 FLAIR (3sk1)	Remove eADC from all protocols, should only do ADC	
	Sagittal FLAIR (4sk1) Axial T1 TSE (4sk1)	Sagittal T2 FLAIR (3sk1) Axial T1 FLAIR (3sk1)	Inject contrast, followed immediately by Axial T2 Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time	
	Axial T2 GRE (4sk1)	SWI (3sk1) with MIPs	Trial and Colonia Contain Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Colonia Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chicago, and Chimineca 115 to 1910 w 12 to anow Contain Chimineca 115 to 1910 w 12 to anow Chimineca 115 to	
	Axial DWI/ADC (3 Direction if possible), reconstruct at 5sk0	Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0	Scan through whole brain (skull to skull) on sagittal images	
	Axial FLAIR (4sk1)	Axial T2 FLAIR	TOV. 44	
	Axial C+ T2 TSE (4sk1) Axial C+ T1 TSE (4sk1)	Axial C+ T2 TSE (3sk1) Axial C+ T1 FLAIR (3sk1)	FOV=23cm	
	Coronal C+ TSE (4sk1)	Coronal C+ T1 FLAIR (3sk1)		
MS Brain (Dr. Hermann - JWM)				
	Sagittal volumetric T1 inversion recovery with 3mm	Precontrast Sagittal T1 FLAIR T2 T2 T2 FLAIR	Important to do as close to CMSC protocol as possible	
	Sagittal volumetric T1 inversion recovery with 3mm reconstructions (3 plane)	Precontrast Sagittal T1 FLAIR , T2 ,T2 T2 FLAIR with 3mm reconstructions in 3 planes	Important to do as close to CMSC protocol as possible , this has been specifically requested by JMW Neurology (Dr. Hermann).	
	reconstructions (3 plane) *If possible , Sagittal volumetric 3D T2 FLAIR with 3mm	with 3mm reconstructions in 3 planes DWI/ ADC- Resolve or 6- direction (4sk0)	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7)	
	reconstructions (3 plane) *If possible , Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane)	with 3mm reconstructions in 3 planes DWI/ ADC- Resolve or 6- direction (4sk0) SWI	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7) (specifically the 0.7) or the older 1.5	
	reconstructions (3 plane) "If possible , Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane) "If possible volumetric 3D T2 with 3mm	with 3mm reconstructions in 3 planes DWI/ADC. Resolve or 6- direction (4sk0) SWI Post-contrast Sagittal T1 non-IR with 3mm reconstructions in 3 planes	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7)	
	reconstructions (3 plane) *If possible, Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane) *If possible volumetric 3D T2 with 3mm reconstructions (3 plane)	with 3mm reconstructions in 3 planes DWI/ ADC- Resolve or 6- direction (4sk0) SWI	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7) (specifically the 0.7) or the older 1.5 This section imaging is required, however.	
	reconstructions (3 plane) *If possible , Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane) *If possible volumetric 3D T2 with 3mm reconstructions (3 plane) *If volumetric imaging not possible , axial T2 and axial and Sagittal and FLAIR (3sk0)	with 3mm reconstructions in 3 planes DWI/ADC. Resolve or 6- direction (4sk0) SWI Post-contrast Sagittal T1 non-IR with 3mm reconstructions in 3 planes	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7) (specifically the 0.7) or the older 1.5 This section imaging is required , however . Label these studies / sequences in PACS as CMSC Protocol?	
	reconstructions (3 plane) *If possible , Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane) * If possible volumetric 3D T2 with 3mm reconstructions (3 plane) *If volumetric imaging not possible , axial T2 and axial and Sagittal and FLAIR (3sk0) Axial T1 spin echo (3sk0)	with 3mm reconstructions in 3 planes DWI/ADC. Resolve or 6- direction (4sk0) SWI Post-contrast Sagittal T1 non-IR with 3mm reconstructions in 3 planes	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7) (specifically the 0.7) or the older 1.5 This section imaging is required, however.	
	reconstructions (3 plane) *If possible , Sagittal volumetric 3D T2 FLAIR with 3mm reconstructions (3 plane) *If possible volumetric 3D T2 with 3mm reconstructions (3 plane) *If yould with 3 plane) *If volumetric imaging not possible , axial T2 and axial and Sagittal and FLAIR (3sk0) Axial T1 spin echo (3sk0) Axial T1 glin echo (3sk0)	with 3mm reconstructions in 3 planes DWI/ADC. Resolve or 6- direction (4sk0) SWI Post-contrast Sagittal T1 non-IR with 3mm reconstructions in 3 planes	this has been specifically requested by JMW Neurology (Dr. Hermann). It may not be possible to do this protocol on the open magnets (specifically the 0.7) (specifically the 0.7) or the older 1.5 This section imaging is required , however . Label these studies / sequences in PACS as CMSC Protocol?	
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			in addition to Stealth/Treatment Plan protocol sequences.
	Ax Prop FLAIR (5/1) Ax Prop FLAIR (5/1)	D. ATIL	* If no Brain MRI completed within last 7 days, please complete Brain with contrast protocol
Stealth/ Treatment Plan *	Ax FSPGR 3D (2/-1)	SAME	FOV=24 for 3D : FOV= 22 for FLAIR
G. 14100			
	Sagittal C+ 11 fat Sat (SSKU.5)	Sagittal C+ 11 fat Sat (SSKU.5)	
	Sagittal STIR (3sk0.5) Sagittal C+ T1 fat sat (3sk0.5)	Sagittal STIR (3sk0.5) Sagittal C+ T1 fat sat (3sk0.5)	
	Sagittal T2 TSE (3sk0.5)	Sagittal T2 TSE (3sk0.5)	
	Sagittal T1 TSE (3sk0.5)	Sagittal T1 FLAIR (3sk0.5)	
Spine Survey	Separate acquisitions for cervical, thoracic, and lumbar spine	Separate acquisitions for cervical, thoracic, and lumbar spine	
Cnino Cur			
	Coronal T2 TSE (2sk0.5) Coronal FLAIR (2sk0.5)	Coronal T2 TSE (2sk0.5) Coronal FLAIR (2sk0.5)	Sagittal volumetric cover scalp to scalp FOV=23cm
	Sagittal T1 MPRAGE with 2mm recons	Sagittal T1 MPRAGE with 2mm recons Coronal T2 TSE (2sk0.5)	Added coronal seizure sequences perpendicular to the temporal lobe Sagittal volumetric cover scalp to scalp
	Coronal C+ TSE (4sk1)	Coronal C+FLAIR (3sk1)	
	Axial C+ T1 TSE (4sk1)	Axial C+T1 FLAIR (3sk1)	FOV=23cm
	Axial C+ T2 TSE (4sk1)	Axial C+ T2 TSE (3sk1)	seem meega mane onun (mun to mun) on mgam mugeo
	Axial DWI/ADC (3 Direction if possible), reconstruct at 5sk0 Axial FLAIR (4sk1)	Axial FLAIR (3sk1)	Scan through whole brain (skull to skull) on sagittal images
	Axial T2 GRE (4sk1) Axial DWI/ADC (3 Direction if possible), reconstruct at 5sk0	SWI (3sk1) with Mis Resolve or 6-Direction DWI/ADC, reconstruct at 4sk0	Axial and coronal contrast enhanced T1s to follow T2 to allow contrast circulation time
	Axial T1 TSE (4sk1)	Axial T1 FLAIR (3sk1)	Inject contrast, followed immediately by Axial T2
	Sagittal T1 TSE (4sk1)	Sagittal T1 FLAIR (3sk1)	Remove eADC from all protocols, should only do ADC
Seizure			* Should not be completed on ED patients and performed as inpatient or outpatient only
	Ax T1 FSE (4/1)		
-	Ax STIR (4/1)		
	Cor T1 (4/1)		
	Sag T1 FSE (4/1) Cor STIR (4/1)		
	Sag T2 FS (4/1)		
	Cor T1 FSE Global (6/1)		
***************************************	Cor STIR FSE Global (6/1)	SAME	FOV=44 for global FOV =20 for Sag & Axial FOV=24 Coronal
Sacrum			
	Dynamic contrast enhanced sequence (Coronal)		
	Sagittal C+ T1 (2sk0)		
	Coronal C+T1(2sk0)		
	Coronal T1 TSE (28k0) Coronal T2 TSE (28k0)		солоны эсин полі анісної наявін ог рону штонви опонат арех
	Sagittal T1 TSE (2sk0) Coronal T1 TSE (2sk0)		Sagittal scan from mid-orbit through mid-orbit Coronal scan from anterior margin of pons through orbital apex
	Pituitary		Control con from mid arbitatornat mid arbita
•	Optionally with Brain WITH	SAME	FOV=13cm (cone to pituitary)
Pituitary			
	Ax TISE (4/1)		
	Ax EPI GRE (4/1)		
-	Ax T2 Prop (4/1)		
	Ax Prop FLAIR (4/1)		
	Ax IR (4/1) Ax DWIRTFA (4/1)		
	Sag T1 SE (5/1)	SAME	FOV= 24 and Sag FOV=18 Axial
Peds Routine			
	DWI (3sk0.3)		
	Coronal C+ T1 fat sat (3sk0.5)		
	Axial C+T1 fat sat (3sk0.5)		
	Axial T1 1SE (38k0.5) Axial T2 fat sat (3sk0.5)		
	Coronal STIR (3sk0.5) Axial T1 TSE (3sk0.5)		FOV=18cm
	Coronal T1 (3sk0.5)		701.40
	Orbits:		and maxillary teeth to above orbits on axial
Orbits	Preferably with Brain WITH	SAME	Orbit images should extend from the lens to mid-pons coronal and maxillary teeth to above
Orbits			
	Coronal STIR (3sk0.3)		Sent to mean story of freed on agents
	Axial DW1 - 3mm Axial T2 (3sk0.3)		Scan from posterior neck through nose/ chin on coronals Scan to lateral sides of neck on sagittal
	Axial T2 fat sat (3sk0.3) Axial DWI - 3mm		Scan from pituitary through clavicles (lower if substernal extension of Thyroid) on axial
	Axial T1 TSE (3sk0.3)		
	Sagittal T1 TSE (3sk0.3) Coronal T1 TSE (3sk0.3)	SAME	FOV=25cm sagittal and coronal FOV=18cm axial

Thoracic With			
	Sagittal T1 TSE (3sk0.5)	Sagittal T1FLAIR (3sk0.5)	Axial images from C7-L1
	Sagittal T2 TSE (3sk0.5)	Sagittal T2 TSE (3sk0.5)	
	Sagittal STIR (3sk0.5)	Sagittal STIR (3sk0.5)	
	Axial T1 TSE (4sk1)	Axial T1 FLAIR (4sk1)	
	Axial T2 TSE (4sk1)	Axial T2 TSE (3sk0.5)	
	Coronal T1 TSE (3sk0.5)	Coronal T1 TSE (3sk0.5)	
	Sagittal DWI (3sk0.3)	DWI sagittal (3sk0.3)	
	Axial C+ T1 fat sat (4sk1)	Axial C+ T1 fat sat (4sk1)	
	Sagittal C+ T1 FSE (3sk0.5)	Sagittal C+ T1 FLAIR (3sk0.5)	
Thoracic Without			
Thoracic Without	Sagittal T1 TSE (3sk0.5)	Sagittal T1FLAIR (3sk0.5)	hillian Good II
	Sagittal T1 TSE (3sk0.5) Sagittal T2 TSE (3sk0.5)	Sagittal TTFLAIR (3sk0.5) Sagittal T2 TSE (3sk0.5)	Axial images from C7-L1
	Sagittal STIR (3sk0.5)	Sagittal STIR (3sk0.5)	
	Axial T1 TSE (4sk1)	Axial T1 FLAIR (4sk1) Axial T2 TSE (3sk0.5)	
	Axial T2 TSE (4sk1)	Axial 12 ISE (3sk0.5) Coronal T1 TSE (3sk0.5)	
	Coronal T1 TSE (3sk0.5)		
	Sagittal DWI (3sk0.3)	DWI sagittal (3sk0.3)	
TMJ			
TNIS	Localizer (coronal and sagittal)	SAME	FOV=12cm
	Sagittal PD oblique Right Closed (2sk0)	SAME	POV=12cm
	Sagittal PD oblique Right Closed (2sk0) Sagittal PD oblique Left Closed (2sk0)		Could do axial or coronal T1 of head (4sk1) instead of localizer
	Sagittal T2 oblique Right Closed (2sk0)		Could do axial of Cotonal 11 of flead (48k1) flistead of focalizer
	Sagittal T2 oblique Left Closed (2sk0)		
	Coronal T1 Right Closed (2sk0)		
	Coronal T1 Left Closed (2sk0)		
	Sagittal PD oblique Right Open (2sk0)		
	Sagittal PD oblique Left Open (2sk0)		
	Sagittal T2 oblique Right Open (2sk0)		
	Sagittal T2 oblique Left Open (2sk0)		
	Sagittai 12 obilque Leit Open (23ko)		
Trigeminal			
2	Complete Brain MRI protocol	SAME	Whole brain FOV= 22cm
	Posterior fossa :		Posterior fossa FOV=18cm
	Axial T1 (3sk0.5)		
	Axial T2 fat sat (3sk0.5)		Scan from the suprasellar cistern to the C1 level on axials, cover through posterior fossa
	Coronal T1 (3sk0.5)		and orbital apex on coronals
	Axial Fiesta w/coronal reformats		
	Axial C+T1 FS (3sk0.5)		
	Coronal C+T1 FS (3sk0.5)		
	Coronal C+ T1 whole head (4sk1)		
pine SBRT Treatment Planning			
	Coronal T1 TSE (3sk 0.5)	Coronal T1 TSE (3sk 0.5)	Axial coverage to be specified on order. Axial images only acquired through areas to be treated
	Sagittal T1 TSE (3sk0)	Sagittal T1 TSE (3sk0)	Sagittal coverage = Typical FOV for region of spine to be treated (i.e. If treatment to cervical spine cover skull base to T1)
	Sagittal T2 TSE (3sk0)	Sagittal T2 TSE (3sk0)	FOV = 12cm on Axials
	Sagittal STIR (3sh0)	Sagittal STIR (3sk0)	
	Axial T2 TSE (2sk0)	Axial T2 TSE (2sk0)	Axial Plane = Perpendicular to vertebral body. If vertebral body is fractured image perpendicular to bed
	Precontrast Axial T1 FLAIR (2sk0)	Precontrast Axial T1 TSE (2sk0)	
	Axial C+ T1 fat sat (2sk0)	Axial C+ T1 fat sat (2sk0)	
		Sagittal C+T1 TSE (3sk0)	