

3T ADNI GE E2 M4 Software, CRM Gradient and 8-channel Brain Coil

Set up the patient according to the ADNI instruction manual. Use the 8-channel brain coil.

Use the electronic ADNI protocol that has been loaded on your scanner.

NOTE: The "adni" pulse sequence used for series 2 and 3 is a works in progress pulse sequence that ADNI sites obtain from GE Healthcare.

SERIES	1. 3 plane loc.	scan plane mode SAT	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		3-plane	matrix/nex	256 / 128 / 1	
	etl			fov (cm)	26	
	scan time :16			slice/space	5 / 5	
			autoshim	On		
comments	Use 8-channel brain coil.					

SERIES	2. Sag MPRAGE	scan plane mode pulse seq image opts. psd name	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		Sag	matrix/nex	256 / 256 / 1	
	<i>SCAN TIMING</i>		3D	phase fov	0.94	
	#echos te Prep time flip angle etl		SPGR	locs/pause		
min full	EDR, IrPrep, Fast	freq. direct.	S/I			
900	adni	fc direct				
8	User CVs	<i>ADDITIONAL PARAMETERS</i>		phase corr		
31.25		Filter Choices = none	autoshim	On		
9:14		turbo mode = 1	<i>SCANNING RANGE</i>			
		swap fat chem shift = 1	fov	26		
	mprage mode = 1	slice/space	1.2mm 170 locs/slab			
	TD or mprageTR=2300					
comments	Cover skin to skin. Remind the patient to hold still for this scan.					

SERIES	3.MPRAGE-repeat	scan plane mode pulse seq image opts. psd name	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		Sag	matrix/nex	256 / 256 / 1	
	<i>SCAN TIMING</i>		3D	phase fov	0.94	
	#echos te Prep time flip angle etl		SPGR	locs/pause		
min full	EDR, IrPrep, Fast	freq. direct.	S/I			
900	adni	fc direct				
8	User CVs	<i>ADDITIONAL PARAMETERS</i>		phase corr		
31.25		Filter Choices = none	autoshim	Off		
9:14		turbo mode = 1	<i>SCANNING RANGE</i>			
		swap fat chem shift = 1	fov	26		
	mprage mode = 1	slice/space	1.2mm 170 locs/slab			
	TD or mprageTR=2300					
comments	Prescribe same image locations as series 2, unless adjustment is needed (e.g. to correct for wrap). Remind the patient to hold still for this scan.					

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SERIES coil	4. Sag B1 Cal PA	scan plane mode	Sag	matrix/nex	128 / 128 / 1
	8hrbrain		3D		phase fov
#echos	1	pulse seq	GRE	locs/pause	
	min full		EDR, Fast		freq. direct.
tr		image opts. psd name		fc direct	
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		Auto Shim
etl		User CVs	Filter Choices=none	fov	<i>SCANNING RANGE</i>
bw1/bw2	62.5		Turbo Mode =1		slice/space
scan time	:41				2.5mm locs/slab=96

comments Cover skin to skin.

SERIES coil	5. Sag B1 Cal PA	scan plane mode	Sag	matrix/nex	128 / 128 / 1
	BODY		3D		phase fov
#echos	1	pulse seq	GRE	locs/pause	
	min full		EDR, Fast		freq. direct.
tr		image opts. psd name		fc direct	
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		Auto Shim
etl		User CVs		fov	<i>SCANNING RANGE</i>
bw1/bw2	62.5		Turbo Mode =1		slice/space
scan time	:41				2.5mm locs/slab=96

comments Turn Body Coil on for this scan. Leave 8hrbrain coil plugged in, but accept change to Body Coil
Same image locations as series 4.

SERIES coil	6. Ax PD/T2 FSE	scan plane mode	<i>IMAGING PARAMETERS</i>	matrix/nex	<i>ACQUISITION TIMING</i>
	8hrbrain		Ax		256 / 256 / 1
#echoes	2	pulse seq	2D	phase fov	0.9
	min full / TE2=98.2		FSE-XL		acqs/pause
te		image opts. psd name	EDR, Fast	freq. direct.	A/P
TR	3000				fc direct
flip angle		User CVs	<i>ADDITIONAL PARAMETERS</i>	Autoshim	Off
etl	16		Filter Choices=none		phase corr
bw1/bw2	20.83		blurring cancellation=0	fov	<i>SCANNING RANGE</i>
scan time	4:49				slice/space
					44 loc, 3mm interleaved

comments Accept change back to 8-channel Brain Coil
Prescribe 44 slices to cover head.

Series 6 is the final patient series.

Follow the ADNI instructions to complete the phantom scans.