

1.5T ADNI GE 11.0 M4 Software, BRM 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 autoshim	5 / 5 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	192 / 192 / 1	
	#echos te		3D	phase fov		
	Prep time flip angle etl		SPGR	locs/pause	S/l	
	<i>SCAN TIMING</i>		EDR, IrPrep, Fast	freq. direct.		
			adni	fc direct		
			<i>ADDITIONAL PARAMETERS</i>	phase corr		
			Filter Choices = none	autoshim	On	
		User CVs	turbo mode = 1	fov	<i>SCANNING RANGE</i>	
			swap fat chem shift = 1	slice/space	24	
			mprage mode = 1		1.2mm 170 locs/slab	
			TD or mprageTR=2400			
scan time	7:41					
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	192 / 192 / 1	
	#echos te		3D	phase fov		
	Prep time flip angle etl		SPGR	locs/pause	S/l	
	<i>SCAN TIMING</i>		EDR, IrPrep, Fast	freq. direct.		
			adni	fc direct		
			<i>ADDITIONAL PARAMETERS</i>	phase corr		
			Filter Choices = none	autoshim	Off	
		User CVs	turbo mode = 1	fov	<i>SCANNING RANGE</i>	
			swap fat chem shift = 1	slice/space	24	
			mprage mode = 1		1.2mm 170 locs/slab	
			TD or mprageTR=2400			
scan time	7:41					
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
	<i>SCAN TIMING</i>				
#echos	1	pulse seq	GRE	locs/pause	
te	min full	image opts.	EDR, Fast	freq. direct.	S/l
tr		psd name		fc direct	
flip angle	2		<i>ADDITIONAL PARAMETERS</i>	Auto Shim	On
etl		User CVs	Filter Choices=none		<i>SCANNING RANGE</i>
bw1/bw2	62.5		Turbo Mode =1	fov	30
scan time	:41			slice/space	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
	<i>SCAN TIMING</i>				
#echos	1	pulse seq	GRE	locs/pause	
te	min full	image opts.	EDR, Fast	freq. direct.	S/l
tr		psd name		fc direct	
flip angle	2		<i>ADDITIONAL PARAMETERS</i>	Auto Shim	Off
etl		User CVs			<i>SCANNING RANGE</i>
bw1/bw2	62.5		Turbo Mode =1	fov	30
scan time	:41			slice/space	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	Ax	matrix/nex	256 / 256 / 1
	8hrbrain		2D		phase fov
	<i>SCAN TIMING</i>				
#echoes	2	pulse seq	FSE-XL	acqs/pause	0
te	min full / TE2=100	image opts.	EDR, Fast	freq. direct.	A/P
TR	3000	psd name		fc direct	
flip angle			<i>ADDITIONAL PARAMETERS</i>	Autoshim	OFF
etl	16	User CVs	Filter Choices=none	phase corr	
bw1/bw2	20.83		blurring cancellation=0		<i>SCANNING RANGE</i>
scan time	6:25			fov	24
			slice/space	48 loc, 3mm interleaved	

comments Accept change back to 8-channel Brain Coil
Prescribe 48 slices to cover head.

Series 6 is the final patient series.

Follow the ADNI instructions to complete the phantom scans.