

1.5T ADNI GE 11.0 M4 Software, TwinSpeed 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 (Whole Body gradient)	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 3D (ZOOM gradient)	matrix/nex	192 / 192 / 1	
	#echos te		SPGR	phase fov		
	Prep time flip angle etl		EDR, IrPrep, Fast	locs/pause	S/l	
	min full	User CVs	<i>ADDITIONAL PARAMETERS</i>		fc direct	
	1000		Filter Choices = none	phase corr		
	8		turbo mode = 1	autoshim	On	
	15.63		swap fat chem shift = 1	<i>SCANNING RANGE</i>		
	7:41	mprage mode = 1	fov	24		
		TD or mprageTR=2400	slice/space	1.2mm 170 locs/slab		
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 3D (ZOOM gradient)	matrix/nex	192 / 192 / 1	
	#echos te		SPGR	phase fov		
	Prep time flip angle etl		EDR, IrPrep, Fast	locs/pause	S/l	
	min full	User CVs	<i>ADDITIONAL PARAMETERS</i>		fc direct	
	1000		Filter Choices = none	phase corr		
	8		turbo mode = 1	autoshim	Off	
	15.63		swap fat chem shift = 1	<i>SCANNING RANGE</i>		
	7:41	mprage mode = 1	fov	24		
		TD or mprageTR=2400	slice/space	1.2mm 170 locs/slab		
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	Sag	matrix/nex	128 / 128 / 1
	8hrbrain		3D (ZOOM gradient)		phase fov
	<i>SCAN TIMING</i>	mode	GRE	locs/pause	
#echos	1	pulse seq	EDR, Fast	freq. direct.	S/l
te	min full	image opts.		fc direct	
tr		psd name		Auto Shim	On
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		<i>SCANNING RANGE</i>
etl		User CVs	Filter Choices=none	fov	30
bw1/bw2	62.5		Turbo Mode =1	slice/space	2.5mm locs/slab=96
scan time	:39				

comments Cover skin to skin.

SERIES coil	5. Sag B1 Cal PA	scan plane	Sag	matrix/nex	128 / 128 / 1
	BODY		3D (ZOOM gradient)		phase fov
	<i>SCAN TIMING</i>	mode	GRE	locs/pause	
#echos	1	pulse seq	EDR, Fast	freq. direct.	S/l
te	min full	image opts.		fc direct	
tr		psd name		Auto Shim	Off
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		<i>SCANNING RANGE</i>
etl		User CVs	Turbo Mode =1	fov	30
bw1/bw2	62.5			slice/space	2.5mm locs/slab=96
scan time	:39				

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	Ax	matrix/nex	256 / 256 / 1
	8hrbrain		2D (ZOOM gradient)		phase fov
	<i>SCAN TIMING</i>	mode	FSE-XL	acqs/pause	0
#echoes	2	pulse seq	EDR, Fast	freq. direct.	A/P
te	min full / TE2=100	image opts.		fc direct	
TR	3000	psd name		Autoshim	Off
flip angle			<i>ADDITIONAL PARAMETERS</i>	phase corr	
etl	16	User CVs	Filter Choices=none		<i>SCANNING RANGE</i>
bw1/bw2	20.83		blurring cancellation=0	fov	24
scan time	6:25			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.