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.

			IMAGING PARAMETERS		*ACQUISITION TIMING*
SERIES	1. 3 plane loc.	scan plane	3-plane	matrix/nex	256 / 128 / 1
coil	8hrbrain	mode	(Whole Body gradient)	fov (cm)	26
etl		SAT		slice/space	5 / 5
scan time	:13			autoshim	On

comments Use 8-channel brain coil.

			IMAGING PARAMETERS		*ACQUISITION TIMING*
SERIES	2. Sag MPRAGE	scan plane	Sag	matrix/nex	192 / 192 / 1
coil	8hrbrain	mode	3D (ZOOM gradient)	phase fov	
	SCAN TIMING	pulse seq	SPGR	locs/pause	
#echos	1	image opts.	EDR, IrPrep, Fast	freq. direct.	S/I
te	min full	psd name	adni	fc direct	
Prep time	1000		*ADDITIONAL PARAMETERS*	phase corr	
flip angle	8		Image acq. delay = 0	autoshim	On
etl		User CVs	turbo mode = 1		*SCANNING RANGE*
bw1/bw2	15.63		swap fat chem shift = 1	fov	24
scan time	7:42		slice resolution = 100%	slice/space	1.2mm 170 locs/slab
			mprage mode = 1		
			TD or mprageTR=2400		

comments Cover skin to skin. Remind the patient to hold still for this scan.

			IMAGING PARAMETERS		*ACQUISITION TIMING*
SERIES	3.MPRAGE-repeat	scan plane	Sag	matrix/nex	192 / 192 / 1
coil	8hrbrain	mode	3D (ZOOM gradient)	phase fov	
	SCAN TIMING	pulse seq	SPGR	locs/pause	
#echos	1	image opts.	EDR, IrPrep, Fast	freq. direct.	S/I
te	min full	psd name	adni	fc direct	
Prep time	1000		*ADDITIONAL PARAMETERS*	phase corr	
			Image acq. delay = 0		
flip angle	8		turbo mode = 1	autoshim	Off
etl		User CVs	swap fat chem shift = 1		*SCANNING RANGE*
bw1/bw2	15.63		slice resolution = 100%	fov	24
scan time	7:42		mprage mode = 1	slice/space	1.2mm 170 locs/slab
			TD or mprageTR=2400		

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.

NOTE: Be sure to select the "**Copy FOV, Thickness, Spacing**" button for the graphic prescription.
Otherwise, if you copy the slice locations from series 2, the number of slices might be reduced.

(Continued on next page)

1.5T ADNI GE 12.0 M4 Software, TwinSpeed Gradient and 8-channel Brain Coil

SERIES	4. Sag B1 Cal PA	scan plane	Sag	matrix/nex	128 / 128 / 1
coil	8hrbrain	mode	3D (ZOOM gradient)	phase fov	
	SCAN TIMING	pulse seq	GRE	locs/pause	
#echos	1	image opts.	EDR, Fast	freq. direct.	S/I
te	min full	psd name		fc direct	
tr			*ADDITIONAL PARAMETERS*	Auto Shim	On
flip angle	2				*SCANNING RANGE*
etl		User CVs	Image acq. delay = 0	fov	30
bw1/bw2	62.5		Turbo Mode = 1	slice/space	2.5mm locs/slab=96
scan time	:36		Slice resolution = 100%		

comments Cover skin to skin.

SERIES	5. Sag B1 Cal PA	scan plane	Sag	matrix/nex	128 / 128 / 1
coil	**BODY**	mode	3D (ZOOM gradient)	phase fov	
	SCAN TIMING	pulse seq	GRE	locs/pause	
#echos	1	image opts.	EDR, Fast	freq. direct.	S/I
te	min full	psd name		fc direct	
tr			*ADDITIONAL PARAMETERS*	Auto Shim	Off
flip angle	2				*SCANNING RANGE*
etl		User CVs	Image acq. delay=0	fov	30
bw1/bw2	62.5		Turbo Mode =1	slice/space	2.5mm locs/slab=96
scan time	:36		Slice resolution = 100%		

comments Turn Body Coil on for this scan. Leave 8hrbrain coil plugged in, but accept change to Body Coil
(In other words, select "**Apply**".) Same image locations as series 4.

SERIES			*IMAGING PARAMETERS*		*ACQUISITION TIMING*
coil	6. Ax PD/T2 FSE	scan plane	Ax	matrix/nex	256 / 256 / 1
	8hrbrain	mode	2D (ZOOM gradient)	phase fov	0.9
	SCAN TIMING	pulse seq	FSE-XL	acqs/pause	0
#echoes	**2**	image opts.	EDR, Fast	freq. direct.	A/P
te	min full / TE2=100	psd name		fc direct	
TR	3000		*ADDITIONAL PARAMETERS*	Autoshim	Off
flip angle				phase corr	
etl	16	User CVs	blurring cancellation=0		*SCANNING RANGE*
bw1/bw2	20.83			fov	24
scan time	6:25			slice/space	48 loc, 3mm interleaved

comments Accept change back to 8-channel Brain Coil. (In other words, select "**Apply**".)
Prescribe 48 slices to cover head.

Series 6 is the final patient series.

Follow the ADNI instructions to complete the phantom scans.