SUPPLEMENTARY DATA

Native myocardial T1 and extracellular volume age and gender-related variations in health

Rosmini S et al.

Sequence parameters

All the scans were performed on a 1.5 T Siemens Avanto scanner (Siemens Medical Solutions, Erlangen, Germany; system software version VB17) using a 32-channel cardiac coil array.

MOLLI, ShMOLLI and SASHA variant were run for the cohort of healthy volunteers.

Complete sequence details can be found on the following pages as detailed below:

- a. Pages 2 & 3 pre-contrast 5s(3s)3s MOLLI indicating 2 inversions with acquisition of images for at least 5 seconds, followed by a recovery of at least 3 seconds, and a second inversion with images acquired for at least 3 seconds.
- b. Pages 4 & 5 post-contrast 4s(1s)3s(1s)2s MOLLI indicating 3 inversions with acquisition of images for at least 4 seconds, followed by a recovery of at least 1 second, a second inversion with images acquired for at least 3 seconds, followed by a recovery of at least 1 second, and a final acquisition of 2 seconds.
- c. Pages 6 & 7 ShMOLLI.
- d. Pages 8 & 9 SASHA.

\\USER\Kellman\cardiac\T1mapping\MOLLI 5s(3s)3s iPAT2 256r PK5 TA: 0:10 PAT: 2 Voxel size: 1.9×1.4×6.0 mm Rel. SNR: 1.00 USER: CV_map_PK5

		Namalia	0#
Properties		Normalize B1 filter	Off Off
Prio Recon	Off	Raw filter	Off
Before measurement		Elliptical filter	Off
After measurement		POCS	Off
Load to viewer	Off	1003	Oil
Inline movie	Off	Geometry	
Auto store images	On	Multi-slice mode	Sequential
Load to stamp segments	Off	Series	Interleaved
Load images to graphic	On	One-sial and	N
segments		Special sat.	None
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		Body	Off
Wait for user to start	On	HE2	On
Start measurements	single	HE4	On
I	g.	HE1	On
Routine		_ HE3	On
Slice group 1		Positioning mode	REF
Slices	1	Table position	H
Dist. factor	20 %	Table position	0 mm
Position	Isocenter	MSMA	S - C - T
Orientation	Transversal		
Phase enc. dir.	A >> P	Sagittal Coronal	R >> L A >> P
Rotation	0.00 deg		
Auto	Off	Transversal	F>>H
Phase oversampling	0 %	Save uncombined	Off
FoV read	360 mm	Coil Combine Mode	Adaptive Combine
FoV phase	75.0 %	Auto Coil Select	Default
Slice thickness	6.0 mm	Shim mode	Tune up
TR	912.00 ms	Adjust with body coil	On
TE	1.14 ms	Confirm freq. adjustment	Off
Averages	1	Assume Silicone	Off
Concatenations	1	? Ref. amplitude 1H	0.000 V
Filter	Distortion Corr.(2D)	Adjustment Tolerance	
Coil elements	HE1-4	Adjust volume	Auto
I .		Position	Isocenter
Contrast		Orientation	Transversal
Magn. preparation	Non-sel. IR	Rotation	0.00 deg
<u>II</u>	200 ms	R>>L	350 mm
Flip angle	35 deg	A>> P	263 mm
Fat suppr.	None		
Restore magn.	On	F>>H	350 mm
Averaging mode	Short term	Physio	
Reconstruction	Magnitude	1st Signal/Mode	ECG/Trigger
Measurements	1	Average cycle	359 ± 53 ms
Multiple series	Off	Captured cycle	359 ± 53
	0	Acquisition window	940 ms
Resolution		Trigger pulse	1
Base resolution	256	Trigger delay	0 ms
Phase resolution	75 %	Segments	84
Phase partial Fourier	7/8	Phases	1
Trajectory	Cartesian		
Interpolation	Off	Tagging	None
		Dark blood	Off
PAT mode	GRAPPA	Cine	Off
Accel. factor PE	2	Doon control	Off
Ref. lines PE	24	Resp. control	Off
Matrix Coil Mode	Auto (Triple)	Inline	
Reference scan mode	Integrated	Subtract	Off
Image Filter	Off	Std-Dev-Sag	Off
Image Filter		Std-Dev-Cor	Off
Distortion Corr.	On	Std-Dev-Tra	Off
Mode	2D	Std-Dev-Time	Off
Unfiltered images	Off	MIP-Saq	Off
Prescan Normalize	Off		
1 Toodan Tronnaise		MIP-Cor	Off

MIP-Tra MIP-Time Save original images	Off Off On
Sequence	
Introduction Dimension Reordering Asymmetric echo Contrasts Bandwidth Optimization Allowed delay Echo spacing	Off 2D Linear Weak 1 977 Hz/Px Min. TE 0 s 2.7 ms
Sequence type Define Shots per slice Trufi delta freq. RF pulse type Gradient mode Excitation Flip angle mode	Trufi Shots 1 0 Hz Fast Fast Slice-sel. Constant
Parameter Map Type No. of Inversions MOLLI TI start MOLLI TI increment MOLLI Trigger delay Motion Correction MoCo Images Only? Acq HB Inv 1 Acq HB Inv 2 Recov HB Inv 2	T1 Map 2 120 ms 80 ms 80 ms On Off 5 3 3

\\USER\Heart\The Heart hospital\Modified Veteran\MOLLI 4s(1s)3s(1s)2s iPAT2

TA: 0:13 PAT: 2 Voxel size: 2.3×1.8×6.0 mm Rel. SNR: 1.00 USER: CV_map_PK5

Properties		Normalize	Off
Prio Recon	Off	B1 filter	Off
Before measurement	1	Raw filter	Off
After measurement	Breath normally	Elliptical filter	Off
Load to viewer	Off	POCS	Off
Inline movie	Off	Geometry	
Auto store images	On	Multi-slice mode	Sequential
Load to stamp segments	Off	Series	Interleaved
Load images to graphic	On	Series	Intelleaved
segments	Oll	Special sat.	None
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		Body	Off
Wait for user to start	On	BA1	On
Start measurements	single	BA2	On
		BA3	On
Routine		BA4	On
Slice group 1		BO1	Off
Slices	1	BO2	Off
Dist. factor	20 %	BO1	Off
Position	L41.5 A33.7 H14.5	BO2	Off
Orientation	C > T34.1 > S-3.1	BP1	On
Phase enc. dir.	R>>L	BP2	On
Rotation	1.22 deg	BP3	On
Auto	Off	BP4	On
Phase oversampling	0 %	Positionina modo	FIX
FoV read	450 mm	Positioning mode Table position	H
FoV phase	75.0 %		••
Slice thickness	6.0 mm	Table position	0 mm
TR	955.20 ms	MSMA Societal	S-C-T R>>L
TE	1.05 ms	Sagittal Coronal	A>> P
Averages	1		F>> H
Concatenations	1	Transversal	1 11
Filter	Distortion Corr.(2D)	Save uncombined Coil Combine Mode	Off
Coil elements	BA1-4;BP1-4	Auto Coil Select	Adaptive Combine Default
Contrast		Auto Coli Select	Delauit
Magn. preparation	Non-sel. IR	Shim mode	Tune up
TI	273 ms	Adjust with body coil	On
Flip angle	35 deg	Confirm freq. adjustment	Off
Fat suppr.	None	Assume Silicone	Off
Restore magn.	On	? Ref. amplitude 1H	0.000 V
Averaging made	Short term	Adjustment Tolerance	Auto
Averaging mode		Adjust volume	
Reconstruction Measurements	Magnitude 1	Position	Isocenter
	Off	Orientation	Transversal
Multiple series	Oil	Rotation	0.00 deg
Resolution		R>>L	350 mm
Base resolution	256	A >> P	263 mm
Phase resolution	75 %	F>> H	350 mm
Phase partial Fourier	7/8	Physio	
Trajectory	Cartesian	1st Signal/Mode	ECG/Trigger
Interpolation	Off	Average cycle	579 ± 5 ms
	00.100.	Captured cycle	579 ± 5
PAT mode	GRAPPA	Acquisition window	994 ms
Accel. factor PE	2	Trigger pulse	1
Ref. lines PE	24	Trigger delay	0 ms
Matrix Coil Mode	Auto (Triple)	Segments	84
Reference scan mode	Integrated	Phases	1
Training Journ House			-
	Off	-	
Image Filter Distortion Corr.	Off On	Tagging	None
Image Filter	Off On 2D	Dark blood	Off
Image Filter Distortion Corr.	On		

Inline

Subtract	Off	
Std-Dev-Sag	Off	
Std-Dev-Cor	Off	
Std-Dev-Tra	Off	
Std-Dev-Time	Off	
MIP-Sag	Off	
MIP-Cor	Off	
MIP-Tra	Off	
MIP-Time	Off	
Save original images	On	

Save original images	On
Sequence	
Introduction Dimension Reordering Asymmetric echo Contrasts Bandwidth Optimization Allowed delay Echo spacing	Off 2D Linear Weak 1 977 Hz/Px Min. TE 0 s 2.5 ms
Sequence type Define Shots per slice Trufi delta freq. RF pulse type Gradient mode Excitation Flip angle mode	Trufi Shots 1 0 Hz Fast Fast Slice-sel. Constant
Parameter Map Type No. of Inversions MOLLI TI start MOLLI TI increment MOLLI Trigger delay Motion Correction MoCo Images Only? Acq HB Inv 1 Acq HB Inv 2 Acq HB Inv 3 Recov HB Inv 1 Recov HB Inv 2 Recov HB Inv 2 Recov HB Inv 3	T1 Map 3 113 ms 80 ms 160 ms On Off 4 3 2 1

\\USER\Heart\The Heart hospital\32 Channel coil\Oxford_ShMOLLI
TA: 0:12 PAT: 2 Voxel size: 1.8×1.8×8.0 mm Rel. SNR: 1.00 USER: CV_molli_561

Properties		Normalize	Off
Prio Recon	Off	— B1 filter	Off
Before measurement	1	Raw filter	Off
After measurement	Breath normally	Elliptical filter	Off
Load to viewer	On	POCS	Read & Phase
Inline movie	On	Geometry	
Auto store images		Multi-slice mode	Cognontial
	On	I	Sequential
Load to stamp segments	On	Series	Interleaved
Load images to graphic	On	Special sat.	None
segments	0"		
Auto open inline display	Off	System	
Start measurement without	On	Body	Off
further preparation		BA1	On
Wait for user to start	On	BA2	On
Start measurements	single	BA3	On
Routine		BA4	On
		BP1	On
Slice group 1		BP2	On
Slices	1	BP3	On
Dist. factor	20 %	BP4	On
Position	L4.2 A63.1 F5.8		
Orientation	T > C19.5 > S1.8	Positioning mode	FIX
Phase enc. dir.	A >> P	Table position	H
Rotation	-0.63 deg	Table position	0 mm
Auto	Off	MSMA	S-C-T
Phase oversampling	0 %	Sagittal	R>>L
FoV read	340 mm	Coronal	A >> P
FoV phase	75.0 %	Transversal	F>> H
Slice thickness	8.0 mm	Save uncombined	Off
TR	210.71 ms	Coil Combine Mode	Adaptive Combine
TE	1.05 ms	Auto Coil Select	Default
Averages	1	Auto Coll Select	Delault
Concatenations	i	Shim mode	Tune up
Filter	Distortion Corr.(2D)	Adjust with body coil	Off .
Coil elements		Confirm freq. adjustment	Off
Conferences	BA1-4;BP1-4	Assume Silicone	Off
Contrast		? Ref. amplitude 1H	0.000 V
Magn. preparation	Non-sel, IR	Adjustment Tolerance	Auto
TI '	110 ms	Adjust volume	ruto
Flip angle	35 deg	Position	Isocenter
Fat suppr.	None	Orientation	Transversal
Restore magn.	On	Rotation	
· · · · · · · · · · · · · · · · · · ·			0.00 deg 350 mm
Averaging mode	Short term	R>>L	
Reconstruction	Magn./Phase	A >> P	263 mm
Measurements	1	F>> H	350 mm
Multiple series	Off	Physio	
•		1st Signal/Mode	ECG/Trigger
Resolution	-100	Average cycle	579 ± 5 ms
Base resolution	192	Captured cycle	-not set-
Phase resolution	100 %	Acquisition window	700 ms
Phase partial Fourier	6/8		
Trajectory	Cartesian	Trigger pulse	1 340 ms
Interpolation	On	Trigger delay	340 ms
	CDADDA	Segments	82
PAT mode	GRAPPA	Phases	1
Accel. factor PE	2	Tagging	None
Ref. lines PE	20	Dark blood	Off
Matrix Coil Mode	Auto (Triple)	Cine	Off
Reference scan mode	Integrated	Oille	Oil
Image Filter		···· Inline	
Image Filter	Off	Subtract	Off
Distortion Corr.	On	Std-Dev-Sag	Off
Mode	2D	Std-Dev-Sag Std-Dev-Cor	Off
Unfiltered images	Off	Std-Dev-Col	Off
	Off	Siu-Dev-11a	OII
Prescan Normalize	Oli	Std-Dev-Time	Off

MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off Off On
Sequence Introduction Dimension Reordering	Off 2D Linear
Asymmetric echo Bandwidth Optimization Echo spacing Sequence type	Allowed 1002 Hz/Px Min. TE TR 2.5 ms Trufi
Define Shots per slice Trufi delta freq. RF pulse type Gradient mode Excitation Flip angle mode	Shots 1 0 Hz Fast Fast Slice-sel. Constant
Mode Inversions Acquisition 1st Inv Acquisition 2nd Inv Acquisition 3rd Inv Recovery 1st Inv Recovery 2nd Inv Recovery 3rd Inv TI TI increment MOLLI Trigger delay	MOLLI 3 5 HBs 1 HO ms 80 ms 500 ms

\\USER\Heart\The Heart hospital\32 Channel coil\SASHA CV_map_448C
TA: 0:13 PAT: 2 Voxel size: 2.2×1.7×8.0 mm Rel. SNR: 1.00 USER: CV_map_448C

Properties		Normalize	Off
Prio Recon	Off	B1 filter	Off
		Raw filter	Off
Before measurement	1	Elliptical filter	Off
After measurement	Breath normally	POCS	Off
Load to viewer	On	1003	Oil
Inline movie	Off	Geometry	
Auto store images	On	Multi-slice mode	Sequential
Load to stamp segments	Off	Series	Interleaved
		Selles	iliterieaveu
Load images to graphic segments	On	Special sat.	None
Auto open inline display	Off		
Start measurement without	On	System	
further preparation	-	Body	Off
Wait for user to start	On	BA1	On
		BA2	On
Start measurements	single	BA3	On
Routine			
		_ BA4	On
Slice group 1		BO1	Off
Slices	1	BO2	Off
Dist. factor	20 %	BO1	Off
Position	L26.6 A33.5 F14.3	BO2	Off
Orientation	C > T44.9 > S1.3	BP1	
			On
Phase enc. dir.	R>> L	BP2	On
Rotation	1.22 deg	BP3	On
Auto	Off	BP4	On
Phase oversampling	0 %		
FoV read	440 mm	Positioning mode	ISO
FoV phase	75.0 %	Table position	F
		Table position	14 mm
Slice thickness	8.0 mm	MSMA	S - C - T
TR	852.80 ms		
TE	1.36 ms	Sagittal	R>>L
Averages	1	Coronal	A >>> P
Concatenations	1	Transversal	F>> H
Filter		Save uncombined	Off
	Distortion Corr.(2D)	Coil Combine Mode	Adaptive Combine
Coil elements	BA1-4;BP1-4	Auto Coil Select	Default
Contrast			
Magn. preparation	Non-sel. SR	Shim mode	Standard
TI	715 ms	Adjust with body coil	Off
Flip angle	70 deg	Confirm freq. adjustment	Off
		Assume Silicone	Off
Fat suppr.	None	? Ref. amplitude 1H	0.000 V
Restore magn.	On		
A	Ob	Adjustment Tolerance	Auto
Averaging mode	Short term	Adjust volume	
Reconstruction	Magnitude	! Position	L26.6 A41.3 H36.2
Measurements	1	! Orientation	C > T8.4 > S1.3
Multiple series	Off	! Rotation	2.35 deg
•		! F>> H	174 mm
Resolution			
Base resolution	256	- !R>>L	164 mm
Phase resolution	78 %	! A >>> P	103 mm
Phase partial Fourier	7/8	Dhysis	
		Physio	
Trajectory	Cartesian	1st Signal/Mode	ECG/Trigger
Interpolation	On	Average cycle	587 ± 0 ms
DAT	ODADDA	Captured cycle	-not set-
PAT mode	GRAPPA	Acquisition window	866 ms
Accel. factor PE	2		
Ref. lines PE	36	Trigger pulse	1
Matrix Coil Mode	Auto (Triple)	Trigger delay	0 ms
Reference scan mode	Integrated	Segments	93
		Phases	1
Image Filter	Off		
Distortion Corr.	On	Tagging	None
Mode	2D	Dark blood	Off
		Cine	Off
	Off		**
Unfiltered images Prescan Normalize	Off		

Inline	
Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Sequence	
Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Off
Bandwidth	1028 Hz/Px
Optimization	Min. TE
Allowed delay	0 s
Echo spacing	2.7 ms
Sequence type	Trufi
Define	Shots
Shots per slice	1
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Variable
	T1 Map
	Т1 Мар
Parameter Map Type	
Parameter Map Type VFL Window	T1 Map 82 pulses
Parameter Map Type VFL Window No. of preps	T1 Map 82 pulses 10
Parameter Map Type VFL Window No. of preps TI start	T1 Map 82 pulses 10 121 ms
Parameter Map Type VFL Window No. of preps TI start TI increment	T1 Map 82 pulses 10 121 ms 66 ms
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction	T1 Map 82 pulses 10 121 ms 66 ms On
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR	T1 Map 82 pulses 10 121 ms 66 ms On Off
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1	T1 Map 82 pulses 10 121 ms 66 ms On Off
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR	T1 Map 82 pulses 10 121 ms 66 ms On Off 11
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3	T1 Map 82 pulses 10 121 ms 66 ms On Off 0ff 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6	T1 Map 82 pulses 10 121 ms 66 ms On Off 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 7 Acq heartbeats 8	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 6 Acq heartbeats 7	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 8 Acq heartbeats 8	T1 Map 82 pulses 10 121 ms 66 ms On Off 0ff 1 1 1 1 1 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 4 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 9 Acq heartbeats 9 Acq heartbeats 10	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 9 Acq heartbeats 10 Recov heartbeats 1	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 2 Acq heartbeats 5 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 9 Acq heartbeats 1 Recov heartbeats 1 Recov heartbeats 2	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 1 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 10 Recov heartbeats 11 Recov heartbeats 1 Recov heartbeats 2 Recov heartbeats 3 Recov heartbeats 3 Recov heartbeats 3	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 1 1 1 0 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 8 Acq heartbeats 10 Recov heartbeats 1 Recov heartbeats 2 Recov heartbeats 3 Recov heartbeats 3 Recov heartbeats 3 Recov heartbeats 4 Recov heartbeats 4 Recov heartbeats 5	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 1 1 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 8 Acq heartbeats 10 Recov heartbeats 1 Recov heartbeats 1 Recov heartbeats 3 Recov heartbeats 3 Recov heartbeats 5 Recov heartbeats 6	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 1 0 0 0 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 10 Recov heartbeats 1 Recov heartbeats 2 Recov heartbeats 3 Recov heartbeats 4 Recov heartbeats 6 Recov heartbeats 7	T1 Map 82 pulses 10 121 ms 66 ms On Off 1 1 1 1 1 1 1 0 0 0 0 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 10 Recov heartbeats 1 Recov heartbeats 2 Recov heartbeats 3 Recov heartbeats 5 Recov heartbeats 7 Recov heartbeats 7 Recov heartbeats 5 Recov heartbeats 5 Recov heartbeats 7	T1 Map 82 pulses 10 121 ms 66 ms On Off Off 1 1 1 1 1 1 1 0 0 0 0 0 0 0
Parameter Map Type VFL Window No. of preps TI start TI increment Motion correction Goodness of fit map Synth MagIR and PSIR Acq heartbeats 1 Acq heartbeats 2 Acq heartbeats 3 Acq heartbeats 4 Acq heartbeats 5 Acq heartbeats 5 Acq heartbeats 6 Acq heartbeats 7 Acq heartbeats 10 Recov heartbeats 1 Recov heartbeats 2 Recov heartbeats 3 Recov heartbeats 4 Recov heartbeats 6 Recov heartbeats 7	T1 Map 82 pulses 10 121 ms 66 ms On Off 1 1 1 1 1 1 1 0 0 0 0 0 0