CMR REFERENCE RANGES FOR AGES 45-74: DATA FROM THE UK BIOBANK

	MALE					FEMALE				
	Abnormal low		Normal zone		Abnormal high	Abnormal low		Normal zone		Abnormal high
Left ventricle										
LVEDV (ml)	<93	Borderline zone*	109 - 218	Borderline zone*	>232	<80	Borderline zone*	88 - 161	Borderline zone*	>175
LVESV (ml)	<34		39 - 97		>103	<25		31 - 68		>73
LVSV (ml)	<49		59 - 132		>140	<47		49 - 100		>110
LV mass (g)	<56		64 - 141		>148	<44		46 - 93		>96
indexed LVEDV (ml/m^2)	<52		60 - 110		>117	<50		54 - 94		>101
indexed LVESV (ml/m^2)	<19		21 - 49		>52	<16		19 - 40		>43
indexed LVSV (ml/m^2)	<28		32 - 67		>70	<29		30 - 59		>63
indexed LV mass (g/m^2)	<33		35 - 70		>72	<28		29 - 55		>55
LVEF (%)	<47		48 - 69		>70	<50		51 - 70		>72
LV mass to volume ratio (g/ml)	<0.40		0.42 - 0.84		>0.87	<0.35		0.39 - 0.71		>0.81
Right ventricle										
RVEDV (ml)	<99		124 - 248		>260	<83		85 - 168		>192
RVESV (ml)	<34		47 - 123		>135	<26		27 - 77		>95
RVSV (ml)	<54		62 - 131		>140	<47		48 - 99		>107
indexed RVEDV (ml/m^2)	<55		68 - 125		>128	<51		53 - 99		>110
indexed RVESV (ml/m^2)	<19		25 - 63		>67	<16		17 - 46		>55
indexed RVSV (ml/m^2)	<30		34 - 67		>69	<29		30 - 59		>61
RVEF (%)	<40		45 - 65		>68	<45		47 - 68		>70

	MALE					FEMALE				
	Abnormal low		Normal zone		Abnormal high	Abnormal low		Normal zone		Abnormal high
Left atrium										
Max. LA vol (2Ch) (ml)	<22	Borderline zone*	30 - 104	Borderline zone*	>112	<22	Borderline zone*	30 - 104	Borderline zone*	>112
Max. LA vol (4Ch) (ml)	<23		36 - 124		>125	<23		36 - 124		>125
Max. LA vol (Biplane) (ml)	<26		37 - 108		>112	<26		37 - 108		>112
LA SV (Biplane) (ml)	<16		23 - 62		>66	<16		23 - 62		>66
indexed Max. LA vol (2Ch) (ml/m^2)	<12		16 - 53		>56	<12		16 - 53		>56
indexed Max. LA vol (4Ch) (ml/m^2)	<14		19 - 62		>63	<14		19 - 62		>63
indexed Max LA vol (Biplane) (ml/m^2)	<15		19 - 55		>56	<15		19 - 55		>56
indexed LA SV (Biplane) (ml/m^2)	<9		12 - 32		>33	<9		12 - 32		>33
LA EF (Biplane) (%)	<44		47 - 73		>75	<44		47 - 73		>75
Right atrium										
Max. RA vol (4Ch) (ml)	<36		43 - 143		>150	<36		43 - 143		>150
RA SV (4Ch) (ml)	<9		10 - 66		>66	<9		10 - 66		>66
indexed Max. RA vol (4Ch) (ml/m^2)	<19		22 - 74		>79	<19		22 - 74		>79
indexed RA SV (4Ch) (ml/m^2)	<5		5 - 33		>35	<5		5 - 33		>35
RA EF (4Ch) (%)	<21		23 - 58		>60	<21		23 - 58		>60

Data described in this table can be found in the paper entitled “Reference ranges for cardiac structure and function using cardiovascular magnetic resonance (CMR) in Caucasians from the UK Biobank population cohort” by Petersen et al. in the Journal of Cardiovascular Magnetic Resonance, 2017. *DOI 10.1186/s12968-017-0327-9*
Borderline zone data can be found in the main manuscript.