University of East Anglia

Norfolk and Norwich University Hospitals NHS Foundation Trust

The following open access data repository demonstrates the numerical differences between the reference methods of CMR for volumes and the clinical standard of fluid filled manometer assessment for pressure, against either beat-by-beat or average loop assessment of PV loop traces from the impedance catheter.

Data were collected from the PREFER-CMR study (NCT: 05114785) with ethical approval via the Health Research Authority Review Board (REC: 21/NE/0149).

If further queries or clarifications are required please contact the authours for assistance:

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Advanced Quantitative Cardiac Solutions

Study ID	CMR_LVEDV	CMR_LVESV	CMR_LVSV	CMR_LVEF	Cath_LVEDV_BeatByBeat	Cath_LVESV_BeatByBeat	Cath_LVSV_BeatByBeat	Cath_LVEF_BeatByBeat	Cath_LVEDV_AverageLoop	Cath_LVESV_AverageLoop	Cath_LVSV_AverageLoop	Cath_LVEF_AverageLoop
A001	91.680	36.460	55.220	60.230	95.673	33.395	62.278	64.741	93.105	34.840	58.265	62.579
A002	179.980	54.430	125.550	69.760	183.410	56.880	126.530	68.860	180.081	72.712	107.369	59.622
A003	165.560	45.640	119.320	72.430	169.624	50.186	119.438	70.241	159.524	56.518	103.006	64.571
A004	136.500	57.330	79.170	58.000	138.782	53.187	85.596	61.226	136.881	55.987	80.894	59.098
A005	138.490	34.900	103.580	74.800	139.448	39.757	99.691	71.024	138.422	35.882	102.540	74.078
A006	128.790	60.170	68.610	53.280	129.348	61.216	68.132	52.635	127.422	62.034	65.389	51.316
A007	166.980	55.200	111.780	66.940	175.014	50.164	124.850	71.298	172.853	62.064	110.789	64.094
A008	106.390	33.960	72.430	68.080	106.777	37.784	68.993	64.349	101.736	36.390	65.346	64.231
A009	207.430	70.990	136.440	65.780	214.769	72.654	141.317	65.853	203.997	120.920	83.076	40.724
A010	277.220	157.220	119.700	43.180	282.273	159.011	123.262	43.631	276.442	158.798	117.644	42.557
A011	89.060	26.170	62.890	70.610	88.629	29.743	58.886	66.001	86.536	30.450	56.086	64.813
A012	152.300	55.550	96.750	63.520	154.948	60.551	94.396	60.790	144.700	64.886	79.815	55.159
A013	163.370	124.370	39.010	23.880	172.499	110.765	61.771	35.605	164.477	138.368	26.109	15.874
A014	103.890	38.240	65.650	63.190	109.463	35.080	74.382	67.867	105.234	36.637	68.596	65.185
A015	141.900	53.440	88.470	62.340	149.263	49.380	99.684	66.762	144.704	58.571	86.133	59.524

Study ID	FluidManometer_LVEDP	FluidManometer_LVsysP	Cath_LVEDP_BeatbyBeat	Cath_LVsysP_BeatbyBeat	Cath_LVEDP_AverageLoop	Cath_LVSysP_AverageLoop
A001	9	157	12.813	114.448	12.769	113.116
A002	22	176	21.675	166.295	20.635	165.528
A003	22	193	31.034	206.858	30.368	205.938
A004	23	164	23.081	157.301	22.772	156.526
A005	14	171	14.873	168.999	11.990	168.176
A006	17	186	9.627	200.506	10.679	200.422
A007	13	133	16.508	130.287	16.794	129.858
A008	16	123	22.889	126.863	15.239	126.308
A009	21	182	26.104	153.852	17.543	143.464
A010	10	151	12.673	143.891	13.005	143.392
A011	18	148	17.411	150.457	17.104	150.094
A012	15	185	11.148	173.009	8.861	172.155
A013	8	185	10.640	165.474	11.084	153.080
A014	19	186	14.932	181.946	13.734	181.217
A015	14	128	13.242	111.763	14.008	108.008

Study ID	Cath_SW(J)_BeatbyBeat	Cath_PE(J)_BeatbyBeat	Cath_SW(J)_AverageLoop	Cath_PE(J)_AverageLoop
A001	0.563	0.218	0.563	0.214
A002	2.131	0.598	2.093	0.605
A003	2.042	0.567	1.994	0.594
A004	1.203	0.548	1.181	0.528
A005	1.347	0.393	1.324	0.477
A006	1.172	0.725	1.154	0.558
A007	1.455	0.370	1.427	0.360
A008	0.792	0.235	0.779	0.225
A009	2.678	0.625	1.898	0.698
A010	1.652	1.151	1.608	1.005
A011	0.813	0.250	0.793	0.253
A012	1.331	0.558	1.243	0.681
A013	0.672	1.150	0.425	1.154
A014	1.086	0.254	1.071	0.228
A015	0.971	0.337	0.725	0.512