

Inter-arm blood pressure difference and cardiovascular risk estimation in primary care

Data Supplement

Sinead TJ McDonagh PhD Research Fellow (1), Ben Norris Mb ChB Foundation Doctor (2), Jayne Fordham MSc Practice Nurse (3), Maria R Greenwood RN Practice Nurse (3), Suzanne H Richards PhD Professor of Primary Care Research (4), John L Campbell MD Professor of General Practice and Primary Care (1), Christopher E Clark PhD Clinical Senior Lecturer (1)

1. Primary Care Research Group, Institute of Health Services Research, University of Exeter Medical School, College of Medicine & Health, Smeall Building, St Luke's Campus, Magdalen Road, Exeter, Devon, England EX1 2LU
2. Royal Devon and Exeter NHS Foundation Trust, Barrack Road, Exeter, Devon EX2 5DW
3. Mid Devon Medical Practice, Witheridge Medical Centre, Cannington Road, Witheridge Tiverton, Devon, EX16 8EZ
4. School of Medicine, Worsley Building, University of Leeds, Leeds, LS2 9JT

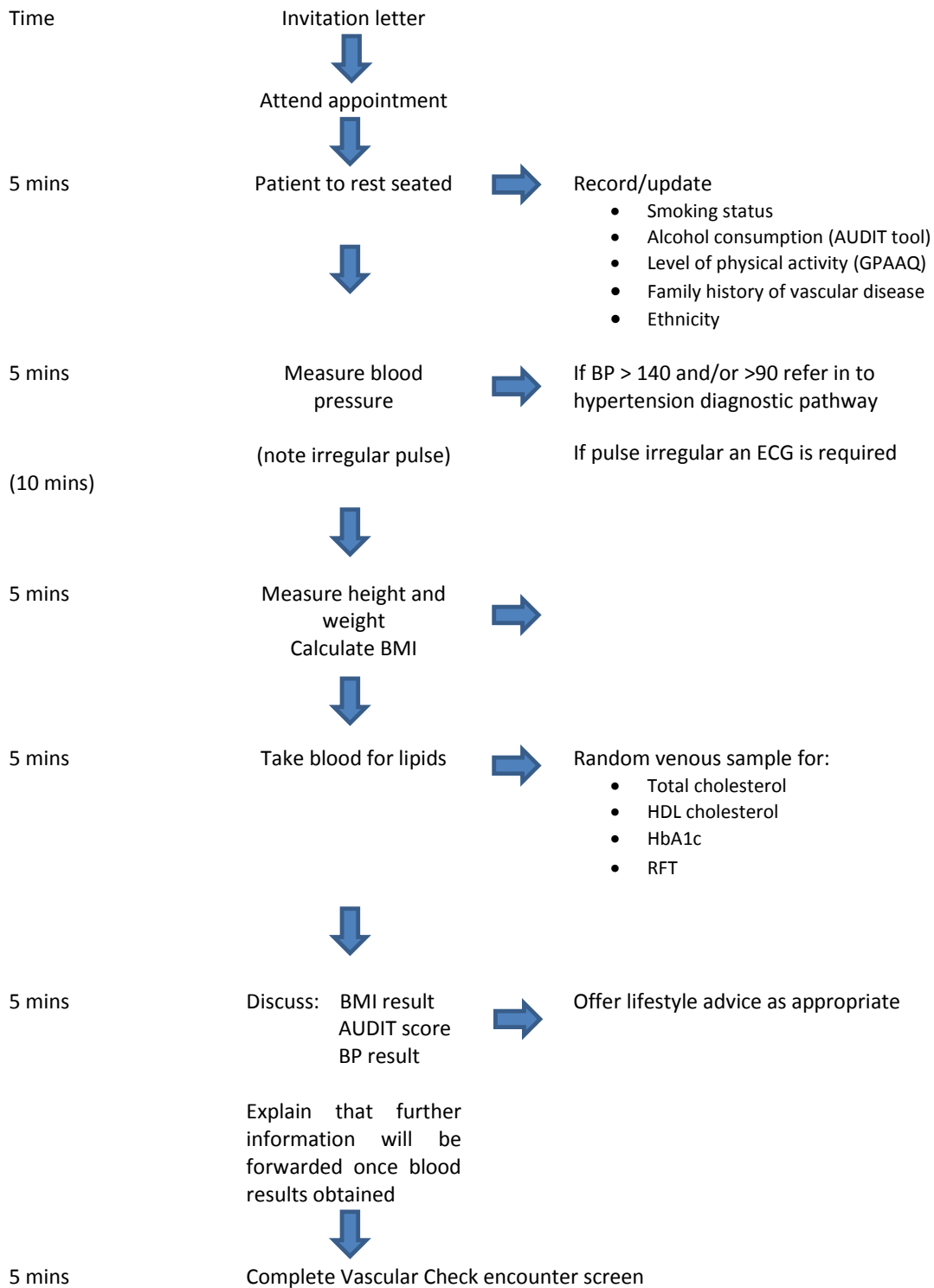


Figure S1 – The Health Check Protocol

	ASCVD ten-year risk score (%)															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1		1.0	2.0	3.0	4.0	5.0	6.0	7.1	8.1	9.1	10.1	11.1	12.1	13.1	14.1	15.1
2		1.0	2.0	3.0	4.1	5.1	6.1	7.1	8.1	9.1	10.2	11.2	12.2	13.2	14.2	15.2
3		1.0	2.0	3.1	4.1	5.1	6.1	7.2	8.2	9.2	10.2	11.3	12.3	13.3	14.3	15.4
4		1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.3	9.3	10.3	11.4	12.4	13.4	14.4	15.5
5		1.0	2.1	3.1	4.2	5.2	6.2	7.3	8.3	9.4	10.4	11.4	12.5	13.5	14.6	15.6
6		1.0	2.1	3.1	4.2	5.2	6.3	7.3	8.4	9.4	10.5	11.5	12.6	13.6	14.7	15.7
7		1.1	2.1	3.2	4.2	5.3	6.3	7.4	8.4	9.5	10.6	11.6	12.7	13.7	14.8	15.8
8		1.1	2.1	3.2	4.3	5.3	6.4	7.4	8.5	9.6	10.6	11.7	12.8	13.8	14.9	16.0
9		1.1	2.1	3.2	4.3	5.4	6.4	7.5	8.6	9.6	10.7	11.8	12.9	13.9	15.0	16.1
10		1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.6	9.7	10.8	11.9	13.0	14.0	15.1	16.2
11		1.1	2.2	3.3	4.4	5.4	6.5	7.6	8.7	9.8	10.9	12.0	13.1	14.1	15.2	16.3
12		1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.2	15.3	16.4
13		1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.4	15.5	16.6
14		1.1	2.2	3.3	4.4	5.6	6.7	7.8	8.9	10.0	11.1	12.2	13.3	14.5	15.6	16.7
15		1.1	2.2	3.4	4.5	5.6	6.7	7.8	9.0	10.1	11.2	12.3	13.4	14.6	15.7	16.8
16		1.1	2.3	3.4	4.5	5.6	6.8	7.9	9.0	10.2	11.3	12.4	13.5	14.7	15.8	16.9
17		1.1	2.3	3.4	4.5	5.7	6.8	8.0	9.1	10.2	11.4	12.5	13.6	14.8	15.9	17.0
18		1.1	2.3	3.4	4.6	5.7	6.9	8.0	9.2	10.3	11.4	12.6	13.7	14.9	16.0	17.2
19		1.2	2.3	3.5	4.6	5.8	6.9	8.1	9.2	10.4	11.5	12.7	13.8	15.0	16.1	17.3
20		1.2	2.3	3.5	4.6	5.8	7.0	8.1	9.3	10.4	11.6	12.8	13.9	15.1	16.2	17.4

Figure S2 - Modified ASCVD ten-year risk score (%) accounting for systolic inter-arm difference, based on analyses of 14,480 subjects of White or African American ethnicity, without pre-existing cardiovascular disease; age range 45 to 79.¹

	Qrisk2 ten-year risk score (%)															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1		1.0	2.0	3.1	4.1	5.1	6.1	7.2	8.2	9.2	10.2	11.3	12.3	13.3	14.3	15.3
2		1.0	2.1	3.1	4.2	5.2	6.3	7.3	8.4	9.4	10.5	11.5	12.5	13.6	14.6	15.7
3		1.1	2.1	3.2	4.3	5.3	6.4	7.5	8.5	9.6	10.7	11.8	12.8	13.9	15.0	16.0
4		1.1	2.2	3.3	4.4	5.5	6.5	7.6	8.7	9.8	10.9	12.0	13.1	14.2	15.3	16.4
5		1.1	2.2	3.3	4.5	5.6	6.7	7.8	8.9	10.0	11.1	12.3	13.4	14.5	15.6	16.7
6		1.1	2.3	3.4	4.5	5.7	6.8	8.0	9.1	10.2	11.4	12.5	13.6	14.8	15.9	17.1
7		1.2	2.3	3.5	4.6	5.8	7.0	8.1	9.3	10.4	11.6	12.8	13.9	15.1	16.2	17.4
8		1.2	2.4	3.5	4.7	5.9	7.1	8.3	9.5	10.6	11.8	13.0	14.2	15.4	16.6	17.7
9		1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.1	13.3	14.5	15.7	16.9	18.1
10		1.2	2.5	3.7	4.9	6.1	7.4	8.6	9.8	11.1	12.3	13.5	14.7	16.0	17.2	18.4
11		1.3	2.5	3.8	5.0	6.3	7.5	8.8	10.0	11.3	12.5	13.8	15.0	16.3	17.5	18.8
12		1.3	2.5	3.8	5.1	6.4	7.6	8.9	10.2	11.5	12.7	14.0	15.3	16.6	17.8	19.1
13		1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13.0	14.3	15.6	16.9	18.1	19.4
14		1.3	2.6	4.0	5.3	6.6	7.9	9.2	10.6	11.9	13.2	14.5	15.8	17.1	18.5	19.8
15		1.3	2.7	4.0	5.4	6.7	8.1	9.4	10.7	12.1	13.4	14.8	16.1	17.4	18.8	20.1
16		1.4	2.7	4.1	5.5	6.8	8.2	9.6	10.9	12.3	13.6	15.0	16.4	17.7	19.1	20.5
17		1.4	2.8	4.2	5.6	6.9	8.3	9.7	11.1	12.5	13.9	15.3	16.7	18.0	19.4	20.8
18		1.4	2.8	4.2	5.6	7.1	8.5	9.9	11.3	12.7	14.1	15.5	16.9	18.3	19.7	21.2
19		1.4	2.9	4.3	5.7	7.2	8.6	10.0	11.5	12.9	14.3	15.8	17.2	18.6	20.1	21.5
20		1.5	2.9	4.4	5.8	7.3	8.7	10.2	11.6	13.1	14.6	16.0	17.5	18.9	20.4	21.8

Figure S3 - Modified QRISK2 ten-year risk score (%) accounting for systolic inter-arm difference, based on analyses of 9,641 subjects without pre-existing cardiovascular disease; age range 25 to 84.¹

	Framingham ten-year risk score (%)															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1		1.0	2.0	3.0	4.0	5.0	6.0	7.1	8.1	9.1	10.1	11.1	12.1	13.1	14.1	15.1
2		1.0	2.0	3.0	4.1	5.1	6.1	7.1	8.1	9.1	10.2	11.2	12.2	13.2	14.2	15.2
3		1.0	2.0	3.1	4.1	5.1	6.1	7.2	8.2	9.2	10.2	11.3	12.3	13.3	14.3	15.4
4		1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.3	9.3	10.3	11.4	12.4	13.4	14.5	15.5
5		1.0	2.1	3.1	4.2	5.2	6.2	7.3	8.3	9.4	10.4	11.5	12.5	13.5	14.6	15.6
6		1.0	2.1	3.1	4.2	5.2	6.3	7.3	8.4	9.4	10.5	11.5	12.6	13.6	14.7	15.7
7		1.1	2.1	3.2	4.2	5.3	6.3	7.4	8.5	9.5	10.6	11.6	12.7	13.8	14.8	15.9
8		1.1	2.1	3.2	4.3	5.3	6.4	7.5	8.5	9.6	10.7	11.7	12.8	13.9	14.9	16.0
9		1.1	2.1	3.2	4.3	5.4	6.4	7.5	8.6	9.7	10.7	11.8	12.9	14.0	15.0	16.1
10		1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.7	9.7	10.8	11.9	13.0	14.1	15.2	16.2
11		1.1	2.2	3.3	4.4	5.5	6.5	7.6	8.7	9.8	10.9	12.0	13.1	14.2	15.3	16.4
12		1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5
13		1.1	2.2	3.3	4.4	5.5	6.6	7.8	8.9	10.0	11.1	12.2	13.3	14.4	15.5	16.6
14		1.1	2.2	3.3	4.5	5.6	6.7	7.8	8.9	10.0	11.2	12.3	13.4	14.5	15.6	16.7
15		1.1	2.2	3.4	4.5	5.6	6.7	7.9	9.0	10.1	11.2	12.4	13.5	14.6	15.7	16.9
16		1.1	2.3	3.4	4.5	5.7	6.8	7.9	9.1	10.2	11.3	12.5	13.6	14.7	15.9	17.0
17		1.1	2.3	3.4	4.6	5.7	6.8	8.0	9.1	10.3	11.4	12.6	13.7	14.8	16.0	17.1
18		1.1	2.3	3.4	4.6	5.7	6.9	8.0	9.2	10.3	11.5	12.6	13.8	14.9	16.1	17.2
19		1.2	2.3	3.5	4.6	5.8	6.9	8.1	9.3	10.4	11.6	12.7	13.9	15.1	16.2	17.4
20		1.2	2.3	3.5	4.7	5.8	7.0	8.2	9.3	10.5	11.7	12.8	14.0	15.2	16.3	17.5

Figure S4 - Modified Framingham ten-year risk score (%) accounting for systolic inter-arm difference, based on analyses of 23,802 subjects without pre-existing cardiovascular disease; age range 20 to 79.¹

Reference

1. Clark CE, Warren FC, Boddy K, et al. Associations Between Systolic Interarm Differences in Blood Pressure and Cardiovascular Disease Outcomes and Mortality. *Hypertension* 2021;77:650-61. doi: 10.1161/HYPERTENSIONAHA.120.15997 [published Online First: 21/12/2020]

Tables available at: <https://medicine.exeter.ac.uk/research/healthresearch/primarycare/interpress-ipd/riskadjustmenttables/> (accessed 26/11/21)