

APPENDIX A. List of requested parameters to be included in the Youth Vascular Consortium

Subject personal information

- Ethnicity
- Date of measurement /s

Other subject information

- Age (for each measurement)
- Sex
- Weight (for each measurement)
- Height (for each measurement)
- Consent given for data to be used in future research
- Details of ethics approval

Blood pressure measurements

- Systolic and diastolic blood pressure
- Description of measurement protocol
- Device used
- Heart rate

Vascular ageing measurements – data from one to four of the below measurements are required. All listed parameters are required for the specific vascular ageing measure.

1. Pulse wave velocity measurements

- Pulse wave velocity (region i.e. carotid to femoral)
- Pulse wave velocity (value1)
- Pulse wave velocity (value2)
- Pulse wave velocity (value3)
- Transit time (value1)
- Transit time (value2)
- Transit time (value3)
- Path length (type)
- Path length (value)
- Brachial systolic and diastolic blood pressure and heart rate at the time of the measurement
- Description of measurement protocol
- Device / software version used

2. Central blood pressure measurements

- Systolic and diastolic blood pressure and heart rate
- Description of measurement protocol
- Device used

3. *Carotid distensibility*

- RF-based / B-mode based
- Specific ultrasound equipment / software used
- Device used for carotid pressure, calibration with systolic and diastolic BP or diastolic mean BP (if mean BP is used, how was it calculated)
- Diameter type (internal – external)
- Diastolic lumen diameter
- Mean diameter
- Distension
- Intima media thickness
- Brachial systolic and diastolic blood pressure and heart rate at the time of the measurement
- Carotid systolic and diastolic blood pressure and heart rate at the time of the measurement
- Carotid artery site (right or left)

4. *Flow mediated dilation*

- Baseline brachial diameter 1
- Max brachial artery diameter 1
- Baseline shear rate 1
- Max shear rate 1
- Shear area under the curve 1
- Shear area under the curve to max diameter 1
- % FMD
- If data measured in duplicate, duplicate data also

Documentation to be gathered per study entered

- Aim, scope and goals of the study
- Population description
- Brief methodology
- Inclusion/exclusion criteria of participants

Appendix B. List of non-essential but requested parameter to be included in the Youth Vascular Consortium

Subject personal information

- Place of birth (town, country)

Other subject information

- Waist circumference (for each measurement)
- Hip circumference (for each measurement)
- Sexual orientation

Biochemistry

- Glycaemia (fasting glucose)
- Postprandial plasma glucose
- HbA_{1c}
- Serum total cholesterol
- Serum HDL cholesterol
- Serum LDL cholesterol
- Fasting serum triglycerides
- Serum uric acid
- Serum creatinine
- Microalbuminuria
- Albumin – creatinine ratio
- Proteinuria
- Serum potassium
- Haemoglobin and haematocrit
- Urinalysis

Other haemodynamics

- Cardiac output
- Details of how cardiac output was measured
- Stroke volume
- Details of how stroke volume was measured
- Peripheral vascular resistance
- Details of how peripheral vascular resistance was measured

Hypertension

- Hypertension (yes/no)
- Treated hypertension (yes/no)
- If treated, class of drugs

Dyslipidaemia

- Dyslipidaemic (yes/no)
- Treated dyslipidaemia (yes/no)
- If treated, type of drugs used

Diabetes

- Diabetes (yes/no)
- Treated diabetes (yes/no)
- If treated, class of drugs

Renal disease

- Renal disease (yes/no)

Lifestyle

- Physical activity – frequency of physical activity per week, number of minutes of light-mild activity per week, number of minutes of moderate activity per week, number of minutes of vigorous activity per week
- Sedentary behavior – number of minutes spent sitting per week
- Diet

Other

- Smoking and drinking habits (yes/no or active/ex/never)
- Associated cardiovascular disease (yes/no)
- If associated cardiovascular disease, type of disease
- Target organ damage (yes/no)
- If target organ damage, type of target organ damage
- Other epidemiological data regarding socioeconomic status, gestational and pregnancy-related data, mental health and wellbeing, maternal and paternal health will be collected depending on availability of data.