Supplemental Material

(for online data supplement)

Table I. STROBE Statement Checklist.

	Item No	Recommendation	
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	3-4
Methods			
Study design	4	Present key elements of study design early in the paper	4
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants	4
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	5-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	5-7
Bias	9	Describe any efforts to address potential sources of bias	5-6
Study size	10	Explain how the study size was arrived at	Figure I
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	7, 9
		(*b*) Describe any methods used to examine subgroups and interactions	7,9
		(*c*) Explain how missing data were addressed	6-7
		(*d*) If applicable, describe analytical methods taking account of sampling strategy	NA
		(*e*) Describe any sensitivity analyses	NA
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Figure I

		(b) Give reasons for non-participation at each stage	Figure I
		(c) Consider use of a flow diagram	Figure I
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	20-21
		(b) Indicate number of participants with missing data for each variable of interest	20-21
Outcome data	15*	Report numbers of outcome events or summary measures	8
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	22-25
		(*b*) Report category boundaries when continuous variables were categorized	20-21
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	7, 9
Discussion			
Key results	18	Summarise key results with reference to study objectives	11
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	13-14
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	11-14
Generalisability	21	Discuss the generalisability (external validity) of the study results	14
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	15

Table II. Predictors of overnight increase in fluid shift variables: calf circumference (A), leg fluid volume (B), and neck circumference (C).

A. Calf circumference (n=204)

term	estimate	SE	statistic	p value
(Intercept)	-0.65	0.10	-6.31	<0.0001
Age	-0.01	0.01	-1.76	0.08
Women:men	-0.08	0.11	-0.71	0.48
Mexican American: non-Hispanic white	0.00	0.11	-0.02	0.98
BMI	0.00	0.01	0.41	0.68
In chair, daytime (7 am – 9 pm), hrs	-0.03	0.02	-2.12	0.04
Congestive heart failure	-0.02	0.19	-0.10	0.92
Waist circumference, cm	0.00	0.00	-0.92	0.36
Sequential compression devices, daytime (7 am – 9 pm), hrs	-0.01	0.02	-0.81	0.42
Overnight increase in total body water	0.01	0.01	1.58	0.12

B. Leg fluid (n=129)

term	estimate	SE	statistic	p value
(Intercept)	-153.26	22.48	-6.82	<0.0001
Age	-1.80	1.13	-1.58	0.12
Women:men	5.98	24.96	0.24	0.81
Mexican American: non-Hispanic white	19.83	25.05	0.79	0.43
BMI	-1.62	4.36	-0.37	0.71
In chair, daytime (7 am – 9 pm), hrs	-8.42	3.48	-2.42	0.02
Congestive heart failure	3.02	54.64	0.06	0.96
Waist circumference, cm	-1.05	1.15	-0.91	0.36
Sequential compression devices, daytime (7 am – 9 pm), hrs	2.43	3.62	0.67	0.50
Overnight increase in total body water	5.39	2.35	2.30	0.02

C. Neck circumference (n=202)

term	estimate	SE	statistic	p value

(Intercept)	0.29	0.24	1.24	0.22
Age	0.00	0.01	0.22	0.83
Women:men	-0.31	0.25	-1.25	0.21
Mexican American: non-Hispanic white	-0.09	0.26	-0.35	0.73
BMI	0.03	0.03	1.00	0.32
In chair, daytime (7 am – 9 pm), hrs	0.02	0.04	0.62	0.54
Congestive heart failure	0.52	0.46	1.13	0.26
Waist circumference, cm	-0.01	0.01	-1.39	0.17
Sequential compression devices, daytime (7 am – 9 pm), hrs	0.00	0.04	-0.08	0.94
Overnight increase in total body water	-0.02	0.02	-0.95	0.34

Table III. Bivariate associations between nighttime and overnight change in total body fluid measurements (individually: total body water (A), extracellular fluid (B), and intracellular fluid (C)) assessed by bioimpedance spectroscopy and log(REI+1).

A. Total body water (n=192)	**estimate**	**SE**	**p value**
Nighttime measurement			
(Intercept)	2.19	0.25	<0.0001
Total body fluid, nighttime	0.01	0.00	<0.0001
Overnight change			
(Intercept)	2.97	0.06	<0.0001
Total body fluid, overnight increase	0.01	0.01	0.48

B. Extracellular fluid (n=192)	**estimate**	**SE**	**p value**
Nighttime measurement			
(Intercept)	2.06	0.24	<0.0001
Extracellular fluid, nighttime	0.02	0.01	<0.0001
Overnight change			
(Intercept)	2.95	0.07	<0.0001
Extracellular fluid, overnight increase	-0.01	0.04	0.82

C. Intracellular fluid (n=191)	**estimate**	**SE**	**p value**
Nighttime measurement			
(Intercept)	2.41	0.24	<0.0001
Intracellular fluid, nighttime	0.01	0.00	0.02
Overnight change			
(Intercept)	2.96	0.06	<0.0001
Intracellular fluid, overnight increase	0.01	0.01	0.40

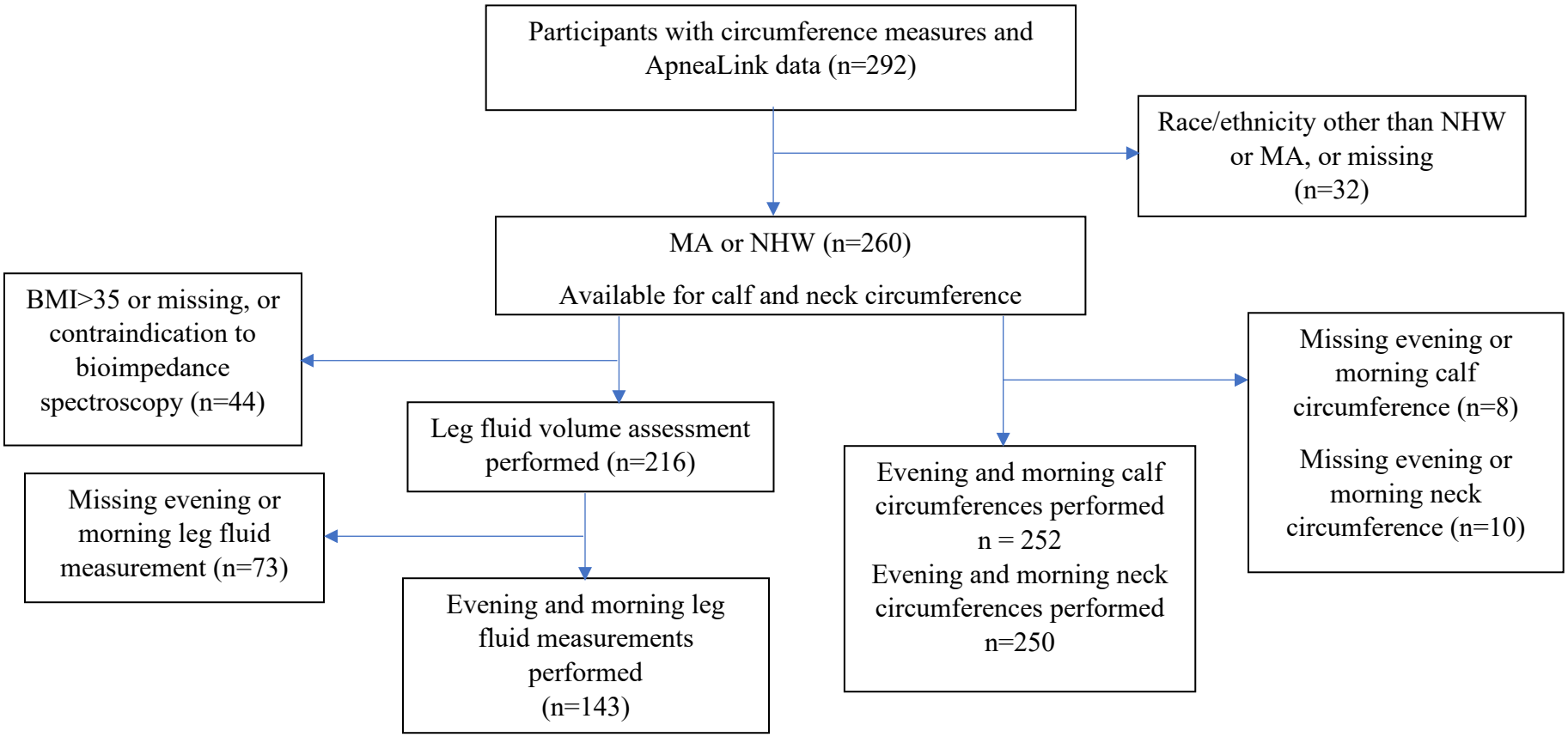

Figure I. Flow diagram