STROBE Statement—checklist of items that should be included in reports of observational studies

	Item	Recommendation	Page Number/	Section/
	No		Line Number	Paragraph
Title and	1	(a) Indicate the study's design with a commonly used	Page 1/ Line 4	Title/
abstract		term in the title or the abstract		Paragraph 1
		(b) Provide in the abstract an informative and balanced	Page 2-3/ Line	Abstract/
		summary of what was done and what was found	25-5	Paragraph 3
Introduction				
Background/rati	2	Explain the scientific background and rationale for the	Page 3-4/ Line	Introduction/
onale		investigation being reported	21-5	Paragraph 1-2
Objectives	3	State specific objectives, including any prespecified	Page 4/ Line	Introduction/
		hypotheses	25-29	Paragraph 4
Methods				
Study design	4	Present key elements of study design early in the paper	Page 5/ Line 3	Methods/
, 8				Paragraph 1
Setting	5	Describe the setting, locations, and relevant dates,	Page 5/ Line	Methods/
C		including periods of recruitment, exposure, follow-up,	1-32	Paragraph 1-3
		and data collection		
Participants	6	(a) Cohort study—Give the eligibility criteria, and the	Page 5/ Line	Methods/
•		sources and methods of selection of participants.	1-16	Paragraph 1
		Describe methods of follow-up		
		Case-control study—Give the eligibility criteria, and the		
		sources and methods of case ascertainment and control		
		selection. Give the rationale for the choice of cases and		
		controls		
		Cross-sectional study—Give the eligibility criteria, and		
		the sources and methods of selection of participants		
		(b) Cohort study—For matched studies, give matching	Page 5/ Line	Methods/
		criteria and number of exposed and unexposed	4-13	Paragraph 1
		Case-control study—For matched studies, give matching		
		criteria and the number of controls per case		
Variables	7	Clearly define all outcomes, exposures, predictors,	Page 5/ Line	Methods/
		potential confounders, and effect modifiers. Give	7-11	Paragraph 1
		diagnostic criteria, if applicable		
Data sources/	8*	For each variable of interest, give sources of data and	Page 5/ Line	Methods/
measurement		details of methods of assessment (measurement).	1-16	Paragraph 1
		Describe comparability of assessment methods if there is		
		more than one group		
Bias	9	Describe any efforts to address potential sources of bias	Page 5/ Line	Methods/
			13-16	Paragraph 1
Study size	10	Explain how the study size was arrived at	Page 5/ Line	Methods/
			1-2	Paragraph 1
Quantitative	11	Explain how quantitative variables were handled in the	Page 6/ Line	Methods/
variables		analyses. If applicable, describe which groupings were	4-7	Paragraph 3
		chosen and why		
Statistical	12	(a) Describe all statistical methods, including those used	Page 7/ Line	Methods/

methods	to control for confounding	17-21	Paragraph 6
	(b) Describe any methods used to examine subgroups	Page 7/ Line	Methods/
	and interactions	17-21	Paragraph 7
	(c) Explain how missing data were addressed	Page 5/ Line	Methods/
		13-17	Paragraph 1
	(d) Cohort study—If applicable, explain how loss to	Page 5/ Line	Methods/
	follow-up was addressed	13-17	Paragraph 1
	Case-control study—If applicable, explain how matching		
	of cases and controls was addressed		
	Cross-sectional study—If applicable, describe analytical		
	methods taking account of sampling strategy		
	(e) Describe any sensitivity analyses	Page 7/ Line	Methods/
		17-21	Paragraph 7

Results				
Participants	13*	(a) Report numbers of individuals at each stage of	Page 7-8/ Line	Results/
		study—eg numbers potentially eligible, examined for	24-9	Paragraph 1
		eligibility, confirmed eligible, included in the study,		
		completing follow-up, and analysed		
		(b) Give reasons for non-participation at each stage	Page 7-8/ Line	Results/
			24-9	Paragraph 1-2
		(c) Consider use of a flow diagram	Page 14/ Line	Figure 1
Descriptive data	14*	(a) Give characteristics of study participants (eg	Page 7-8/ Line	Results/
1		demographic, clinical, social) and information on	24-9	Paragraph 1-2
		exposures and potential confounders		
		(b) Indicate number of participants with missing data for	Page 7-8/ Line	Results/
		each variable of interest	24-9	Paragraph 1-2
		(c) Cohort study—Summarise follow-up time (eg,	Page 8/ Line	Results/
		average and total amount)	10-24	Paragraph 3
Outcome data	15*	Cohort study—Report numbers of outcome events or	Page 7-8/ Line	Results/
		summary measures over time	24-9	Paragraph 1-2
		Case-control study—Report numbers in each exposure	NA	NA
		category, or summary measures of exposure		
		Cross-sectional study—Report numbers of outcome	NA	NA
		events or summary measures		
Main results	16	(a) Give unadjusted estimates and, if applicable,	Page 8/ Line	Results/
		confounder-adjusted estimates and their precision (eg,	10-24	Paragraph 3
		95% confidence interval). Make clear which confounders		
		were adjusted for and why they were included		
		(b) Report category boundaries when continuous	Page 8/ Line	Results/
		variables were categorized	10-24	Paragraph 3
		(c) If relevant, consider translating estimates of relative	Page 8/ Line	Results/
		risk into absolute risk for a meaningful time period	10-24	Paragraph 3
Other analyses	17	Report other analyses done—eg analyses of subgroups	NA	NA
		and interactions, and sensitivity analyses		
Discussion				

			1		
Key results	18	Summarise key results with reference to study objectives	Page 11/ Line	Discussion/	
			25-31	Paragraph 7	
Limitations	19	Discuss limitations of the study, taking into account	Page 11/ Line	Discussion/	
		sources of potential bias or imprecision. Discuss both	18-23	Paragraph 7	
		direction and magnitude of any potential bias			
Interpretation	20	Give a cautious overall interpretation of results	Page 11-12/	Discussion/	
		considering objectives, limitations, multiplicity of	Line 32-4	Paragraph 8	
		analyses, results from similar studies, and other relevant			
		evidence			
Generalisability	21	Discuss the generalisability (external validity) of the	Page 11-12/	Page 11-12/	
		study results	Line 32-4	Line 32-4	
Other information					
Funding	22	Give the source of funding and the role of the funders for	Page 12/ Line	Other	
		the present study and, if applicable, for the original study	10-11	information/	
		on which the present article is based		Paragraph 2	

^{*}Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Article information: https://dx.doi.org/10.21037/gs-22-519

^{*}As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copy editing and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.