STROBE statement: Checklist of essential items Version 3 (Sept 2005)

	Item #	*Cohort study*	*Case-control study*	*Cross-sectional study*
TITLE & ABSTRACT	1	(a) Identify the article as a cohort study in the title or the abstract.	(a) Identify the article as a case-control study in the title or the abstract.	(a) Identify the article as a cross-sectional study in the title or the abstract.
		(b) The abstract should be an informative and structured summary of the article, addressing key items in this checklist.		
INTRODUCTION				
Background / Rationale	2	Explain scientific background and rationale for the investigation being reported.		
Objectives	3	State specific objectives including any pre-specified hypotheses.		
METHODS				
Study design	4	Present key elements of study design. State purpose of original study, if article is one of several from an ongoing study.		
Setting	5	Describe setting, locations and dates defining periods of data collection.		
Participants	6	(a) Give inclusion and exclusion criteria, sources and methods of selection of participants.	(a) For cases and controls separately, give inclusion and exclusion criteria, sources and methods of selection.	(a) Give inclusion and exclusion criteria, sources and methods of selection of participants.
		(b) Give period and methods of follow-up.	(b) Give precise diagnostic criteria for cases, and rationale for choice of controls.	

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			(c) For matched studies, give matching criteria and number of controls per case.	
Variables of interest	7	List and clearly define all variables of interest indicating which are seen as outcomes, exposures, potential predictors, potential confounders or effect modifiers.		
Measurement	8 *	(a) For each variable of interest give details of methods of assessment (measurement).		
		(b) If applicable, describe comparability of assessment methods across groups.		
Bias	9	Describe any measures taken to address potential sources of bias.		
Sample size	10	Describe rationale for study size, including practical and statistical considerations.		
Statistical methods	11	(a) Describe all statistical methods including those to control for confounding.		
		(b) Describe how loss to follow-up and missing data were addressed.	(b) Describe how any matching of cases and controls and missing data were addressed.	(b) Describe how any design effects and missing data were addressed.
		(c) If applicable, describe methods for subgroup analyses and sensitivity analyses.		
Quantitative variables	12	(a) Explain how quantitative variables are analyzed e.g. which groupings are chosen, and why.		
		(b) Present results from continuous analyses as well as from grouped analyses, if appropriate.		

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

	Item #	Cohort study	Case-control study	Cross-sectional study
Funding	13	Give source of funding and role of funder(s) for the present study and, if applicable, the original study on which the present article is based.		
RESULTS				
Participants	14 *	(a) Report the numbers of individuals at each stage of the study, e.g. numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow up, and analysed.		
		(b) Give reasons for non-participation at each stage.		
		(c) A flow diagram is recommended.		
		(d) Report dates defining period of recruitment.		
			(e) For matched studies, give distribution of number of controls per case.	
Descriptive data	15 *	(a) Give characteristics of study participants (e.g. demographic, clinical, social) and information on exposures and potential confounders		
		(b) Indicate for each variable of interest the completeness of the data.		
		(c) Summarize average and total amount of follow up and dates defining follow up.		
Outcome data	16 *	Report numbers of outcome events or summary measures over time.	Report numbers in each exposure category.	Report numbers of outcome events or summary measures.

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	Item #	Cohort study	Case-control study	Cross-sectional study
Main results	17	(a) Give unadjusted and confounder adjusted measures of association and their precision (e.g. 95% confidence intervals). Make clear which confounders were adjusted for and on what grounds they were included and others were not. (b) For comparisons using categories derived from quantitative variables, report the range of values or median value in each group. (c) Translate relative measures into absolute differences, for a meaningful risk period that does not extend beyond the range of the data. (d) Report results standardized to confounder and modifier distributions for realistic target populations.		
Other analyses	18	Report any other analyses performed, e.g. subgroup analyses and sensitivity analyses.		
DISCUSSION				
Key findings	19	Summarize key results with reference to study hypotheses.		
Limitations	20	(a) Discuss limitations of the study, taking into account sources of potential bias or imprecision, and problems that could arise from multiplicity of analyses, exposures and outcomes. Discuss both direction and magnitude of any potential bias.		
		(b) Consider that the discussion of limitations should not be used as a substitute for quantitative sensitivity analyses.		
Generalizability	21	Discuss the generalizability (external validity) of the study findings.		
Interpretation	22	Give a cautious overall interpretation of the results in the context of current evidence and study limitations, paying attention to alternative interpretations.		

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