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

Section/item	Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	Page 1/Line 2-4	title
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Page 1,2/Line20- 28,49-51	Abstract/Background, Conclusion
Introduction				I
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Page 3/Line 58-65	Introduction/Paragraph
Objectives	3	State specific objectives, including any prespecified hypotheses	Page 4/Line 86-87	Introduction/Paragraph 3
Methods				
Study design	4	Present key elements of study design early in the paper	Page 4/Line 93-96	Methods/patients
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page 5/Line 107-111	Methods/patients
Participants	6	(a) Cohort study —Give the eligibility criteria, and the sources and methods of selection of participants. 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	Page 5/Line 104- 108	Methods/patients
		(b) Cohort study —For matched studies, give matching criteria and number of exposed and unexposed Case-control study —For matched studies, give matching criteria and the number of controls per case	Not applicable	NA
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Page 5/Line 106-111	Methods/patients
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	Page 7/Line 157- 168	Methods/ Statistical methods

Bias	9	Describe any efforts to address potential sources of bias	Page 4/Line 96-97	Methods/patients
Study size	10	Explain how the study size was arrived at	Page 4/Line 96-97	Methods/patients
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Page 7/Line 157- 168	Methods/ Statistical methods
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Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	Page 7/Line 157- 168	Methods/ Statistical methods
		(b) Describe any methods used to examine subgroups and interactions	Page 7/Line 157- 168	Methods/ Statistical methods
		(c) Explain how missing data were addressed	Page 7/Line 167- 168	Methods/ Statistical methods
		(d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed <i>Case-control study</i> —If applicable, explain how matching of cases and controls was addressed <i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy	Page 4/Line 96-97	Methods/patients
		(e) Describe any sensitivity analyses	Page 5/Line 106- 111	Methods/patients
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	Page 7/Line 171- 178	Results/ Clinicopathological characteristics
		(b) Give reasons for non-participation at each stage	Page 7/Line 187- 190	Results/ Clinicopathological characteristics
		(c) Consider use of a flow diagram	Page 16/Line 439	Methods/patients
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page 7/Line 179- 190	Results/ Clinicopathological characteristics

	(b) Indicate number of participants with missing data for each variable of interest	Page 7/Line 179- 190	Results/ Clinicopathological characteristics
	(c) Cohort study—Summarise follow-up time (eg, average and total amount)	Page 4/Line 96-97	Methods/patients
15*	Cohort study—Report numbers of outcome events or summary measures over time	Page 8/Line 192- 202	Results/ Postoperative pathologic lymph node outcomes
	Case-control study—Report numbers in each exposure category, or summary measures of exposure	NA	NA
	Cross-sectional study—Report numbers of outcome events or summary measures	NA	NA
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	Page 8/Line 192- 202	Results/Postoperative pathologic lymph node outcomes
	(b) Report category boundaries when continuous variables were categorized	Not applicable	NA
	(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Not applicable	NA
17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Page 8/Line 192- 202	Results/Postoperative pathologic lymph node outcomes
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18	Summarise key results with reference to study objectives	Page 9/Line 228- 234	Discussion/Paragraph 2
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	Page 12/Line 314- 326	Discussion/Paragraph 5
20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Page 12/Line 307- 313	Discussion/Paragraph 4
	16 17 18 19	(c) Cohort study—Summarise follow-up time (eg, average and total amount) 15* Cohort study—Report numbers of outcome events or summary measures over time Case-control study—Report numbers in each exposure category, or summary measures of exposure Cross-sectional study—Report numbers of outcome events or summary measures 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 (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period 17 Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses 18 Summarise key results with reference to study objectives 19 Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias 20 Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results	(c) Cohort study—Summarise follow-up time (eg, average and total amount) Page 4/Line 96-97 15* Cohort study—Report numbers of outcome events or summary measures over time Page 8/Line 192-202 Case-control study—Report numbers in each exposure category, or summary measures of exposure NA Cross-sectional study—Report numbers of outcome events or summary measures NA (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 (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period Not applicable 17 Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses Page 8/Line 192-202 18 Summarise key results with reference to study objectives Page 9/Line 228-234 19 Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction Page 12/Line 314-326 20 Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results Page 12/Line 307-

Generalisability	21	Discuss the generalisability (external validity) of the study results	Page 12/Line 315- 319	Discussion/Paragraph 5		
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	No funding	NA		

^{*}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.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

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