Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: doi:10.31222/osf.io/9sm4x.). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

Materials

Antibodies	Yes (indicate where provided:	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		No antibody was used.

Cell materials	Yes (indicate where provided:	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		No cell materials was used
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		No cell materials was used

Experimental animals	Yes (indicate where provided:	n/a
Laboratory animals: Provide species, strain, sex, age, genetic modification status. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		No experimental animal was used
Animal observed in or captured from the field: Provide species, sex and age where possible		No experimental animal was used
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		No experimental animal was used

Plants and microbes	Yes (indicate where provided:	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		No plants or microbes were used.
Microbes: provide species and strain, unique accession number if available, and source		No plants or microbes were used.

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Page 4, Line 71-74	
Provide statement confirming informed consent obtained from study participants.	Page 4, Line 71-74	
Report on age and sex for all study participants.	Page 6, Line 123-125 and Table 1	

Design

Study protocol	Yes (indicate where	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		It is not a clinical trial..

Laboratory protocol	Yes (indicate where	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		It is a retrospective clinical study.

Experimental study design (statistics details)	Yes (indicate where	n/a
State whether and how the following have been done**, or** if they were not carried out.		It is a observational clinical study.
Sample size determination		It is an observational clinical study.
Randomisation		It is an observational clinical study.
Blinding		It is an observational clinical study.
Inclusion/exclusion criteria		It is an observational clinical study.

Sample definition and in-laboratory replication	Yes (indicate where	n/a
State number of times the experiment was replicated in laboratory		It is an observational clinical study.
Define whether data describe technical or biological replicates		It is an observational clinical study.

Ethics	Yes (indicate where	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Page 4, Line 71-74, Materials and methods section, the 1st paragraph	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		It does not involve any experimental animals.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		It does not involve any specimen and field samples.

Dual Use Research of Concern (DURC)	Yes (indicate where	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		It is an observational clinical study, and no harmful materials were used in the study.

Analysis

Attrition	Yes (indicate where provided:	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	Page 4, Line 75-81, Materials and methods section, the 2nd paragraph	

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	Page 5-6, Line 101-117, Materials and methods section, the 5th-6th paragraph	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		No dataset is created.
If data are publicly available, provide accession number in repository or DOI or URL.		No dataset is created.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		No dataset is created.

Code Availability	Yes (indicate where provided:	n/a
For all newly generated code and software essential for replicating the main findings of the study:		No code or software is generated.
State whether the code or software is available.		No code or software is generated.
If code is publicly available, provide accession number in repository, or DOI or URL.		No code or software is generated.

Reporting

Adherence to community standards	Yes (indicate where provided: section/paragraph)	n/a
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.	Page 4, Line73-74, Materials and methods section, the 1st paragraph	
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

Article information: http://dx.doi.org/10.21037/jtd-20-2862.

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

	Item No.	Recommendation	Page No.	Relevant text from manuscript
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Page 1	Line 2-3
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Page 2-3	Line 24-49
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	Page 3-4	Line 52-69
Objectives	3	State specific objectives, including any prespecified hypotheses	Page 4	Line 69-74
Methods				
Study design	4	Present key elements of study design early in the paper	Page 4	Line 81-82
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page 4	Line 81-90
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 4	Line 88-89; Line 81-82
		(*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	NA	It is not a matched study.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Page 5	Line 91-108
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 5*	Line 91-108
Bias	9	Describe any efforts to address potential sources of bias	Page 5	Line 97-108
Study size	10	Explain how the study size was arrived at	Page 4	Line 81-82

Continued on next page

Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Page 5-6	Line 109-126
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	Page 5-6	Line 109-126
		(*b*) Describe any methods used to examine subgroups and interactions	Page 6	Line 120-122
		(*c*) Explain how missing data were addressed	NA	All data were well collected.
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *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	NA	The study focus on the number of harvested lymph nodes.
		(*e*) Describe any sensitivity analyses	NA	This study didn't perform any sensitivity analysis.
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 6, 8	Line 128-130, 171-172
		(b) Give reasons for non-participation at each stage	Page 6	Line 129-130
		(c) Consider use of a flow diagram	NA	No flow diagram was used.
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page 6-7	Line 131-142
		(b) Indicate number of participants with missing data for each variable of interest	NA	All data were well collected.
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	NA	The study focus on the number of harvested lymph nodes.
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	Page 20-22	Table 1, Table 2, Table 3
		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		
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	NA	No confounders were adjusted
		(*b*) Report category boundaries when continuous variables were categorized	NA	No continuous variables were categorized
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA	No translation was performed.

Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Page 9	Line 178-193
Discussion				
Key results	18	Summarise key results with reference to study objectives	Page 10	Line 210-218
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	Page 12-13	Line 260-274
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Page 10-12	Line 219-253
Generalisability	21	Discuss the generalisability (external validity) of the study results	Page 13	Line 275-280
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	Page 14	Line 296-297

*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.