

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](https://doi.org/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: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	No commercial reagents used	N/A
Cell materials	Yes (indicate where provided: section/paragraph)	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 used	N/A
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No cell materials used	N/A
Experimental animals	Yes (indicate where provided: section/paragraph)	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 animals used	N/A
Animal observed in or captured from the field: Provide species, sex and age where possible	No experimental animals used	N/A
Model organisms: Provide Accession number in repository (where relevant) OR RRID	No experimental animals used	N/A
Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	No plants and microbes used	N/A
Microbes: provide species and strain, unique accession number if available, and source	No plants and microbes used	N/A
Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	This study is a retrospective study about the Imaging data measurement	N/A
Provide statement confirming informed consent obtained from study participants.	This study is a retrospective study about the Imaging data measurement	N/A
Report on age and sex for all study participants.	This study is a retrospective study about the Imaging data measurement	N/A

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.	not involve the clinical trials	N/A
Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	not involve the laboratory protocol	N/A
Experimental study design (statistics details)	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done, or if they were not carried out.		
Sample size determination	YES	
Randomisation	YES	
Blinding	This study is a retrospective study	N/A
Inclusion/exclusion criteria	YES	
Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Take the average of three data measurements.	N/A
Define whether data describe technical or biological replicates	The data describe is technical replicates.	
Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	2021-K-09-01	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No experimental animals used.	N/A
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	No involving specimen and field samples.	N/A
Dual Use Research of Concern (DURC)	Yes (indicate where provided: section/paragraph)	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	No dual use research	N/A

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	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.	YES, PAGE3. LINE16	
Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	YES, PAGE4. LINE18	
Data Availability	Yes (indicate where provided: section/paragraph)	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	The created datasets are not available, including protocols for restriction on access. because the datesets is local area network in our hospital, not available for internet.	N/A
If data are publicly available, provide accession number in repository or DOI or URL.	The created datasets are not available, including protocols for restriction on access. because the datesets is local area network in our hospital, not available for internet.	N/A
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	The created datasets are not available, including protocols for restriction on access. because the datesets is local area network in our hospital, not available for internet.	N/A
Code Availability	Yes (indicate where provided: section/paragraph)	n/a
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.	No newly generated code and software.	N/A
If code is publicly available, provide accession number in repository, or DOI or URL.	No newly generated code and software.	N/A

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.		
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.	N/A

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