# 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: section/paragraph) | n/a |
|---|---|---|
| For commercial reagents, provide supplier name, catalogue number and RRID, if available. | No antibodies were 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 lines were used. | **n/a** |
| **Primary cultures:** Provide species, strain, sex of origin, genetic modification status. | No cell lines were 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 animals were used. | **n/a** |
| **Animal observed in or captured from the field:** Provide species, sex and age where possible | No animals were used. | **n/a** |
| **Model organisms:** Provide Accession number in repository (where relevant) **OR** RRID | No Model organisms were 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 were used. | **n/a** |
| **Microbes:** provide species and strain, unique accession number if available, and source | No Plants and microbes were 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. | Yes. In the Methods section, paragraph Patient selection. The reference number is Reference number 2020-531.Line 77-79. | |
| Provide statement confirming informed consent obtained from study participants. | Yes. In the Methods section, paragraph Patient selection. Line 77-79. | |
| Report on age and sex for all study participants. | Yes, See Table 1. | |

## 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 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 clinical trials. | **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 | In the Methods section, paragraph Patient selection. Line 79-91. | |
| Randomisation | Patients were selected according to Inclusion/exclusion criteria. Line 79-91. | **n/a** |
| Blinding | Patients were selected according to Inclusion/exclusion criteria. Line 79-91. | **n/a** |
| Inclusion/exclusion criteria | In the Methods section, paragraph Patient selection. Line 79-91. | |

| Sample definition and in-laboratory replication | Yes (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| State number of times the experiment was replicated in laboratory | In the Methods section, paragraph DNA extraction and 16S rRNA gene amplicon sequencing and Sequence analysis. Line 100-126. | |
| Define whether data describe technical or biological replicates | In the Methods section, paragraph DNA extraction and 16S rRNA gene amplicon sequencing and Sequence analysis. Line 100-126. | |

| 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. | Yes. In the Methods section, paragraph Patient selection. The reference number is Reference number 2020-531. Line 77-79. | |
| Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval. | No experimental animals were 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. | Yes. In the Methods section, paragraph Patient selection. Line 77-79. | |

| 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 | Not applicable. | **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. In the Methods section, paragraph Patient selection. Line 79-91. | |

| Statistics | Yes (indicate where provided: section/paragraph) | n/a |
|---|---|---|
| Describe statistical tests used and justify choice of tests. | In the Methods section, paragraph Sequence analysis. Line 114-126. | |

| 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 datasets for this manuscript are available from the corresponding author on reasonable request. | |
| If data are publicly available, provide accession number in repository or DOI or URL. | The datasets for this manuscript are available from the corresponding author on reasonable request. | |
| If publicly available data are reused, provide accession number in repository or DOI or URL, where possible. | The datasets for this manuscript are available from the corresponding author on reasonable request. | |

| 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: | | n/a |
| State whether the code or software is available. | Not applicable. | |
| If code is publicly available, provide accession number in repository, or DOI or URL. | Not applicable. | |

## 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. | |

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