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# The ARRIVE guidelines 2.0: author checklist

## The ARRIVE Essential 10

These items are the basic minimum to include in a manuscript. Without this information, readers and reviewers cannot assess the reliability of the findings.

| Item | | Recommendation | Section/line number, or reason for not reporting |
|---|---|---|---|
| **Study design** | 1 | For each experiment, provide brief details of study design including: | Sec. 2.4. |
| | | a. The groups being compared, including control groups. If no control group has been used, the rationale should be stated. | Sec. 2.4. |
| | | b. The experimental unit (e.g. a single animal, litter, or cage of animals). | |
| **Sample size** | 2 | a. Specify the exact number of experimental units allocated to each group, and the total number in each experiment. Also indicate the total number of animals used. | Sec. 2.4. Secs. 2.5-2.7; Figs. 3-6 legends. |
| | | b. Explain how the sample size was decided. Provide details of any *a priori* sample size calculation, if done. | Sec. 2.4. no formal a priori power calculation. |
| **Inclusion and exclusion criteria** | 3 | a. Describe any criteria used for including and excluding animals (or experimental units) during the experiment, and data points during the analysis. Specify if these criteria were established *a priori.* If no criteria were set, state this explicitly. | Sec. 2.4. |
| | | b. For each experimental group, report any animals, experimental units or data points not included in the analysis and explain why. If there were no exclusions, state so. | Sec. 2.4. lines 140-151; no animal exclusions. |
| | | c. For each analysis, report the exact value of *n* in each experimental group. | Secs. 2.5-2.7; Figs. 3-6 legends (endpoint-specific n). |
| **Randomisation** | 4 | a. State whether randomisation was used to allocate experimental units to control and treatment groups. If done, provide the method used to generate the randomisation sequence. | Sec. 2.4. random-number table. |
| | | b. Describe the strategy used to minimise potential confounders such as the order of treatments and measurements, or animal/cage location. If confounders were not controlled, state this explicitly. | Not reported: treatment/measurement order and cage-location control not described. |
| **Blinding** | 5 | Describe who was aware of the group allocation at the different stages of the experiment (during the allocation, the conduct of the experiment, the outcome assessment, and the data analysis). | Not reported: blinding/group-allocation awareness not described. |
| **Outcome measures** | 6 | a. Clearly define all outcome measures assessed (e.g. cell death, molecular markers, or behavioural changes). | Secs. 2.5-2.7. Results 3.3-3.6. |
| | | b. For hypothesis-testing studies, specify the primary outcome measure, i.e. the outcome measure that was used to determine the sample size. | No primary outcome specified for sample-size determination; Sec. 2.4. |
| **Statistical methods** | 7 | a. Provide details of the statistical methods used for each analysis, including software used. | Sec. 2.8. relevant figure legends. |
| | | b. Describe any methods used to assess whether the data met the assumptions of the statistical approach, and what was done if the assumptions were not met. | Sec. 2.8. |
| **Experimental animals** | 8 | a. Provide species-appropriate details of the animals used, including species, strain and substrain, sex, age or developmental stage, and, if relevant, weight. | Sec. 2.4. |
| | | b. Provide further relevant information on the provenance of animals, health/immune status, genetic modification status, genotype, and any previous procedures. | Sec. 2.4; health/immune, GM/genotype and prior procedures not reported. |
| **Experimental procedures** | 9 | For each experimental group, including controls, describe the procedures in enough detail to allow others to replicate them, including: | Secs. 2.4-2.7. |
| | | a. What was done, how it was done and what was used. | Sec. 2.4; Sec. 2.5. |
| | | b. When and how often. | Sec. 2.4; Sec. 2.5. |
| | | c. Where (including detail of any acclimatisation periods). | Sec. 2.4. |
| | | d. Why (provide rationale for procedures). | |
| **Results** | 10 | For each experiment conducted, including independent replications, report: | Results 3.3-3.6; Figs. 3-6 legends. |
| | | a. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable (e.g. mean and SD, or median and range). | Figs. 3-6 legends: eta-squared reported; CIs not reported. |
| | | b. If applicable, the effect size with a confidence interval. | |