

Reporting checklist for the evaluation of imputation methodology

☐ **Aims**

e.g. simulation scope

- ☐ simulation design (incl. pseudo-code or flow diagram)
 - ☐ required level of precision (incl. number of simulation repetitions)
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☐ **Data-generating mechanisms**

e.g. data generation and missingness generation

- ☐ data source (incl. model-based or design-based, sampling variance)
 - ☐ data characteristics (incl. multivariate relations and data structures such as clustering)
 - ☐ missingness mechanisms (incl. type or functional form of the missing data model)
 - ☐ missingness patterns (incl. missingness proportion)
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☐ **Estimands**

e.g. complete data target

☐ **Methods**

e.g. missing data methods and analytic method

- ☐ imputation methods (incl. parameters such as the number of imputations)
 - ☐ estimation method (incl. reference methods such as complete case analysis)
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☐ **Performance measures**

e.g. evaluation of estimates and imputed values

- ☐ statistical properties (incl. comparative performance, if applicable)
 - ☐ validity of imputations (incl. imputation model fit and distributional characteristics)
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