Checklist for Artificial Intelligence in Medical Imaging (CLAIM): 2024 Update

Section / Topic	No.	Item	Page / Line	No	NA
TITLE / ABSTRACT					
	1	Identification as a study of AI methodology, specifying the category of technology used (e.g., deep learning)	**YES**		
ABSTRACT					
	2	Summary of study design, methods, results, and conclusions	**YES**		
INTRODUCTION					
	3	Scientific and/or clinical background, including the intended use and role of the AI approach	**YES**		
	4	Study aims, objectives, and hypotheses	**YES**		
METHODS					
Study Design	**5**	Prospective or retrospective study	**RETRO**		
	6	Study goal	**YES**		
Data	**7**	Data sources	**YES**		
	8	Inclusion and exclusion criteria	**YES**		
	9	Data pre-processing	**YES**		
	10	Selection of data subsets	**YES**		
	11	De-identification methods	**YES**		
	12	How missing data were handled			**N/A**
	13	Image acquisition protocol	**YES**		
Reference Standard	**14**	Definition of method(s) used to obtain reference standard	**YES**		
	15	Rationale for choosing the reference standard	**YES**		
	16	Source of reference standard annotations	**YES**		
	17	Annotation of test set	**YES**		
	18	Measures of inter- and intra-rater variability of features described by the annotators	**Consensus**		
Data Partitions	**19**	How data were assigned to partitions	**YES**		
	20	Level at which partitions are disjoint (each element belongs to only one group)	**YES**		
Testing Data	**21**	Intended sample size	**YES**		

Section / Topic	No.	Item	Page / Line	No	NA
Model	**22**	Detailed description of model	**YES**		
	23	Software libraries, frameworks, and packages	**YES**		
	24	Initialization of model parameters	**YES**		
Training	**25**	Details of training approach	**YES**		
	26	Method of selecting the final model	**YES**		
	27	Ensembling techniques	**YES**		
Evaluation	**28**	Metrics of model performance	**YES**		
	29	Statistical measures of significance and uncertainty	**YES**		
	30	Robustness or sensitivity analysis	**YES**		
	31	Methods for explainability or interpretability	**YES**		
	32	Evaluation on internal data	**YES**		
	33	Testing on external data	**YES**		
	34	Clinical trial registration	**YES**		
RESULTS					
Data	**35**	Numbers of patients or examinations included and excluded	**YES**		
	36	Demographic and clinical characteristics of cases in each partition	**YES**		
Model performance	**37**	Performance metrics and measures of statistical uncertainty	**YES**		
	38	Estimates of diagnostic performance and their precision	**YES**		
	39	Failure analysis of incorrect results External !!!	**YES**		
DISCUSSION					
	40	Study limitations	**YES**		
	41	Implications for practice, including intended use and/or clinical role	**YES**		
OTHER INFORMATION					
	42	Provide a reference to the full study protocol or to additional technical details	**YES**		
	43	Statement about the availability of software, trained model, and/or data	**YES**		
	44	Sources of funding and other support; role of funders	**YES**		

* Indicate page and/or line number for each checklist item that is present. NA = not applicable.

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