

CLEAR-S Checklist v1.0

Shortened version of CLEAR checklist containing only methodologic quality items

Note: Use the checklist in conjunction with the main text for clarification of all items.
Yes, details provided; No, details not provided; n/e, not essential; n/a, not applicable; Page, page number

Section	No.	Item	Yes	No	n/a	Page
Method						
Study design	7	Adherence to guidelines or checklists (e.g., CLEAR checklist)	☒	☐	☐	4
	8	Ethical details (e.g., approval, consent, data protection)	☒	☐	☐	4
	9	Sample size calculation	☐	☒	☐	
	10	Study nature (e.g., retrospective, prospective)	☒	☐	☐	4
	11	Eligibility criteria	☒	☐	☐	4
	12	Flowchart for technical pipeline	☒	☐	☐	4-5
Data	13	Data source (e.g., private, public)	☒	☐	☐	4
	14	Data overlap	☐	☐	☒	
	15	Data split methodology	☒	☐	☐	5
	16	Imaging protocol (i.e., image acquisition and processing)	☒	☐	☐	4
	17	Definition of non-radiomic predictor variables	☒	☐	☐	4
	18	Definition of the reference standard (i.e., outcome variable)	☒	☐	☐	3
Segmentation	19	Segmentation strategy	☒	☐	☐	4
	20	Details of operators performing segmentation	☒	☐	☐	4
Pre-processing	21	Image pre-processing details	☒	☐	☐	4
	22	Resampling method and its parameters	☒	☐	☐	4
	23	Discretization method and its parameters	☒	☐	☐	4
	24	Image types (e.g., original, filtered, transformed)	☒	☐	☐	4
Feature extraction	25	Feature extraction method	☒	☐	☐	4-5
	26	Feature classes	☒	☐	☐	5
	27	Number of features	☒	☐	☐	5
	28	Default configuration statement for remaining parameters	☐	☐	☒	
Data preparation	29	Handling of missing data	☐	☐	☒	
	30	Details of class imbalance	☐	☐	☒	
	31	Details of segmentation reliability analysis	☐	☐	☒	

Section	No.	Item	Yes	No	n/a	Page
	32	Feature scaling details (e.g., normalization, standardization)	☒	☐	☐	5
	33	Dimension reduction details	☒	☐	☐	5-6
Modeling	34	Algorithm details	☒	☐	☐	4-5
	35	Training and tuning details	☒	☐	☐	4-5
	36	Handling of confounders	☐	☒	☐	
	37	Model selection strategy	☒	☐	☐	5
Evaluation	38	Testing technique (e.g., internal, external)	☒	☐	☐	4
	39	Performance metrics and rationale for choosing	☒	☐	☐	4-5
	40	Uncertainty evaluation and measures (e.g., confidence intervals)	☐	☒	☐	
	41	Statistical performance comparison (e.g., DeLong's test)	☒	☐	☐	4-5
	42	Comparison with non-radiomic and combined methods	☒	☐	☐	4-6
	43	Interpretability and explainability methods	☐	☒	☐	
Open Science						
Data availability	53	Sharing images along with segmentation data [n/e]	☐	☒	☐	
	54	Sharing radiomic feature data	☐	☒	☐	
Code availability	55	Sharing pre-processing scripts or settings	☐	☒	☐	
	56	Sharing source code for modeling	☐	☒	☐	
Model availability	57	Sharing final model files	☐	☒	☐	
	58	Sharing a ready-to-use system [n/e]	☐	☒	☐	

Kocak B, Baessler B, Bakas S, Cuocolo R, Fedorov A, Maier-Hein L, Mercaldo N, Müller H, Orlhac F, Pinto Dos Santos D, Stanzione A, Ugga L, Zwanenburg A. CheckList for EvaluAtion of Radiomics research (CLEAR): a step-by-step reporting guideline for authors and reviewers endorsed by ESR and EuSoMI. Insights Imaging. 2023 May 4;14(1):75. doi: 10.1186/s13244-023-01415-8