Key Variables Extracted from the Best Practices in Data Analysis and Sharing in Neuroimaging using MRI (COBIDAS) Document

Experimental Design		
☐ Age (mean, SD, range)	☐ Exclusion criteria	☐ Race/Ethnicity (if applicable)
☐ Sex	☐ Clinical criteria	☐ Matching strategy (if applicable)
☐ Education (Parents) / SES	☐ Clinical Instruments	☐ Subject scanning order
☐ Handedness	☐ Cognitive measures	☐ Pre-registration of study
Ethical Considerations		
☐ Ethical approval	☐ Informed consent	☐ Informed assent (if applicable)
Acquisition Reporting		
☐ Special accommodations	☐ Pulse sequence & parameters *(full set listed in COBIDAS document)*	☐ Fat suppression
☐ MRI model and field strength		☐ Brain coverage
☐ Type of head coil	☐ Parallel imaging / multiband	☐ Internal scanner pre-processing
Functional MRI		
☐ Task or resting-state fMRI	☐ "Dummy" scans acquired	☐ Motion monitoring / correction
☐ Length and number of runs	☐ Slice order and timing	☐ rs-fMRI: Eyes open or closed?
Task functional MRI		
☐ Design (Event related, block, etc.)	☐ Optimization of design?	☐ Ordering of events/blocks
☐ Length and type of baseline	☐ Presentation software used?	☐ Presentation hardware
☐ Condition and stimuli used	☐ Specifics of stimuli presented	☐ Responses collected
☐ Timing structure of events	☐ Unique number of stimuli	☐ Run order
☐ Random/Jittered pattern used	☐ Repetition of the stimuli used	
Behavioral Performance		
☐ Number of variables recorded	☐ Types of variables recorded	☐ Performance summary statistics
Preprocessing		
☐ Software used	☐ Spatial filtering	☐ Intensity correction
☐ Segmentation method	☐ Registration algorithm	☐ Physiologic noise removal
☐ Gradient distortion correction	☐ Native or Standard space	
DTI Preprocessing		
☐ Eddy current correction	☐ Voxel-wise or tract-based?	☐ Reference or atlas used
☐ Diffusion estimation models	☐ Threshold to define voxels of interest	☐ Algorithm used for tractography
fMRI Preprocessing		
☐ T_1 Stabilization volumes	☐ Excluded due to excessive motion	☐ Volume censoring
☐ Slice timing correction	☐ Function/Structure coregistration	☐ Summary measures used for analyses
☐ Motion correction approaches	☐ Temporal filtering	☐ Masks or seed regions applied?
Statistical Modeling & Inference		
☐ Dependent variable	☐ Model settings	☐ Inference: Multiple testing correction
☐ Independent variables	☐ Inference: Contrast/Effect	***Machine Learning***
☐ Model type	☐ Inference: Search region	☐ Training procedure
☐ Feature extraction	☐ Inference: Statistic type	☐ Evaluation metrics
☐ Dimension reduction	☐ Inference: p-Value computation	☐ Significance and fit
Results Reporting		
☐ List of tested and omitted effects	☐ Unthresholded maps	☐ ICA analyses and # of components
☐ Extracted data	☐ Extracted data	☐ Graph Theory: Null hypothesis tested
☐ Table of Coordinates	☐ Spatial features	☐ Optimized evaluation metrics
Data Sharing & Reproducibility		
☐ Materials shared	☐ Ethics compliance	☐ Tools used (names, versions, URLs)
☐ URL and/or Access information	☐ Data format (i.e., DICOM, BIDS)	☐ Computational infrastructure

Note: For a complete description of each item, reporting of power analyses, and for alternative neuroimaging methods (i.e. arterial spin labelling, dynamic susceptibility contrast MRI, or combined MRI and EEG, etc.) please refer to the original COBIDAS document at the follow site: (https://www.biorxiv.org/content/10.1101/054262v2). This Table is open and can be copied, pasted, adapted, or re-used in any format.