

Physiological Waveforms

ECG



PPG



EEG



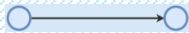
EMG



PCG



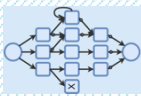
Direct



Chain



Branch



Reasoning Structure

Reasoning Objective

Decision

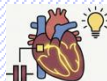
3



Guideline-Constrained
Inference



Differential
Diagnosis



Mechanistic
Explanation



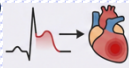
Counterfactual
Robustness



Uncertainty-
Aware Abstention

Interpretation

2



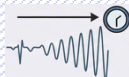
Morphology
Semantics



Rhythm and Cycle
Structure



Cross-Lead
Concordance



Temporal
Evolution



Cross-Signal
Coupling

Evidence

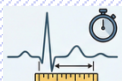
1



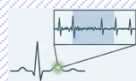
Signal Quality
Assessment



Event
Segmentation



Measurement
Extraction



Evidence
Localization