

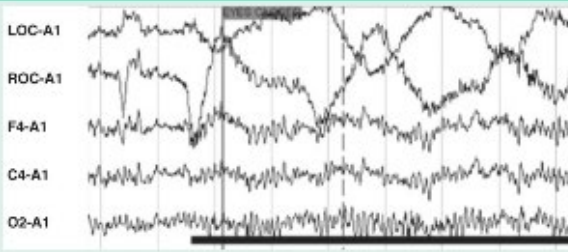
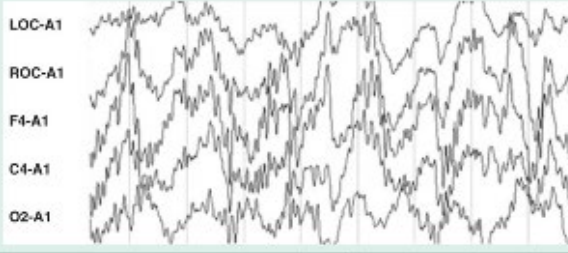
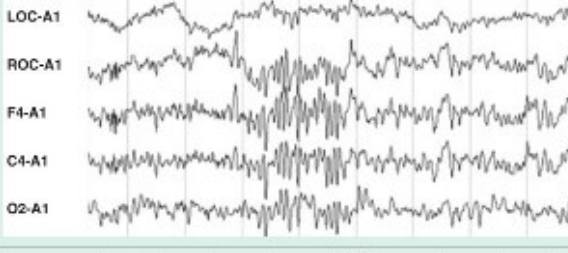
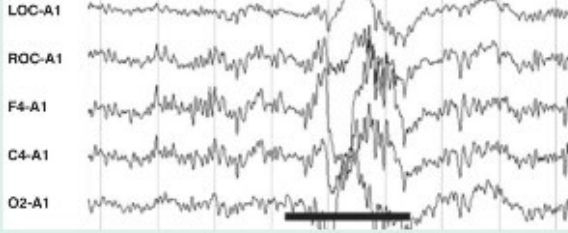
Sleep Staging

Packet 1

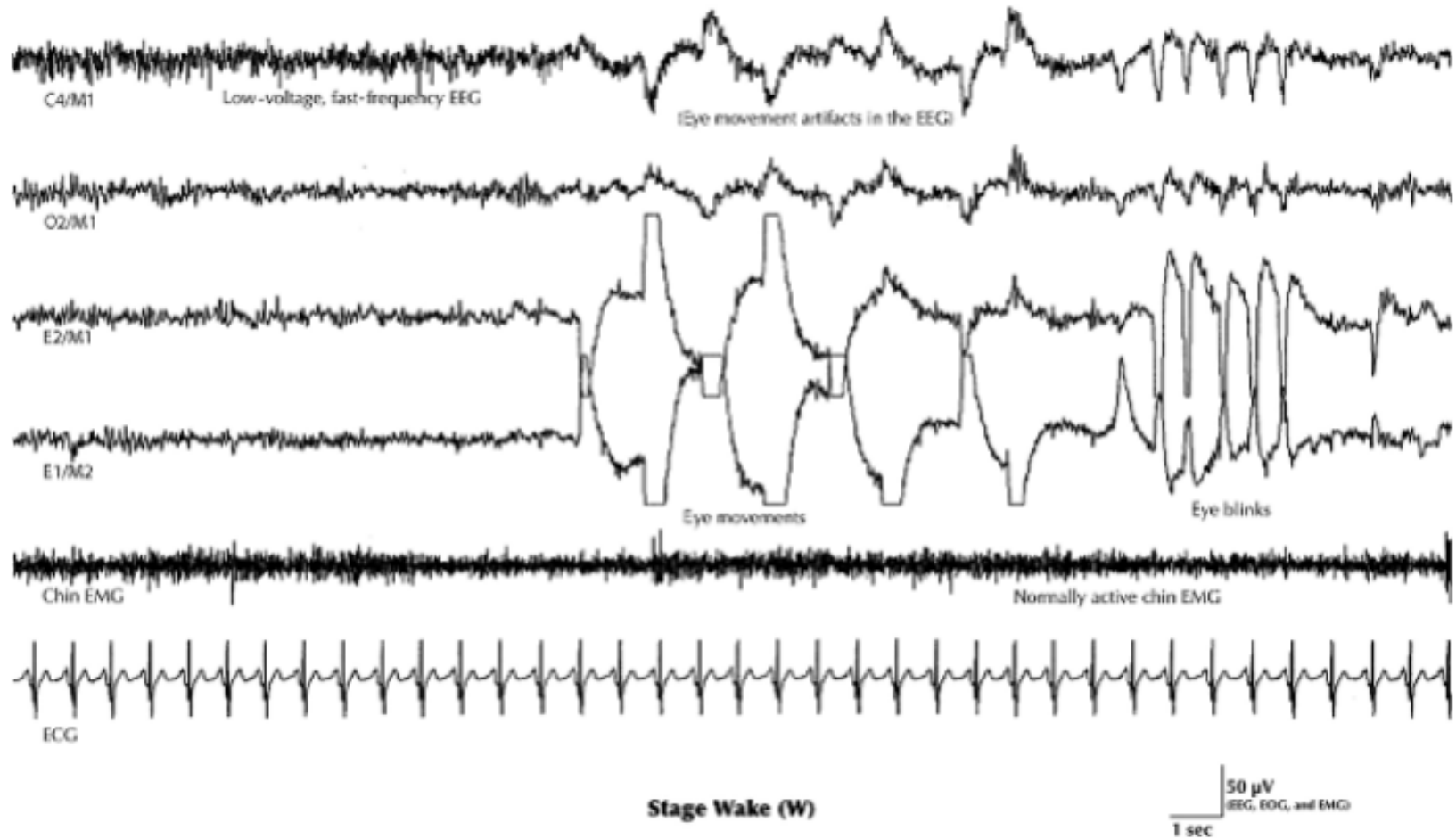
Differences Between R&K Manual and AASM Manual

Differences	R and K Manual	AASM Scoring Manual
EEG electrodes	Score sleep stages using central (C3, C4) leads	Score using frontal, central, and occipital leads
Major body movements	Movement time can be scored if more than half the epoch is obscured	No movement time staging exists
Slow wave sleep	Consists of both stage 3 and stage 4 sleep with delta wave amplitude measured using central leads	Only recognizes stage N3 sleep with delta wave amplitude measured using frontal leads
Terminology of stages	Stage 1, stage 2, stage 3, stage 4, and stage REM sleep	Stage N1, stage N2, stage N3, and stage R sleep
Reference electrode	Left and right ear or mastoid, termed <i>A1</i> or <i>A2</i>	Left and right mastoid, termed <i>M1</i> or <i>M2</i>
Scoring stage 2 (or N2) sleep	3-minute rule that states if greater than 3 minutes pass between spindles or K complexes, then score stage 1 sleep	No 3-minute rule exists

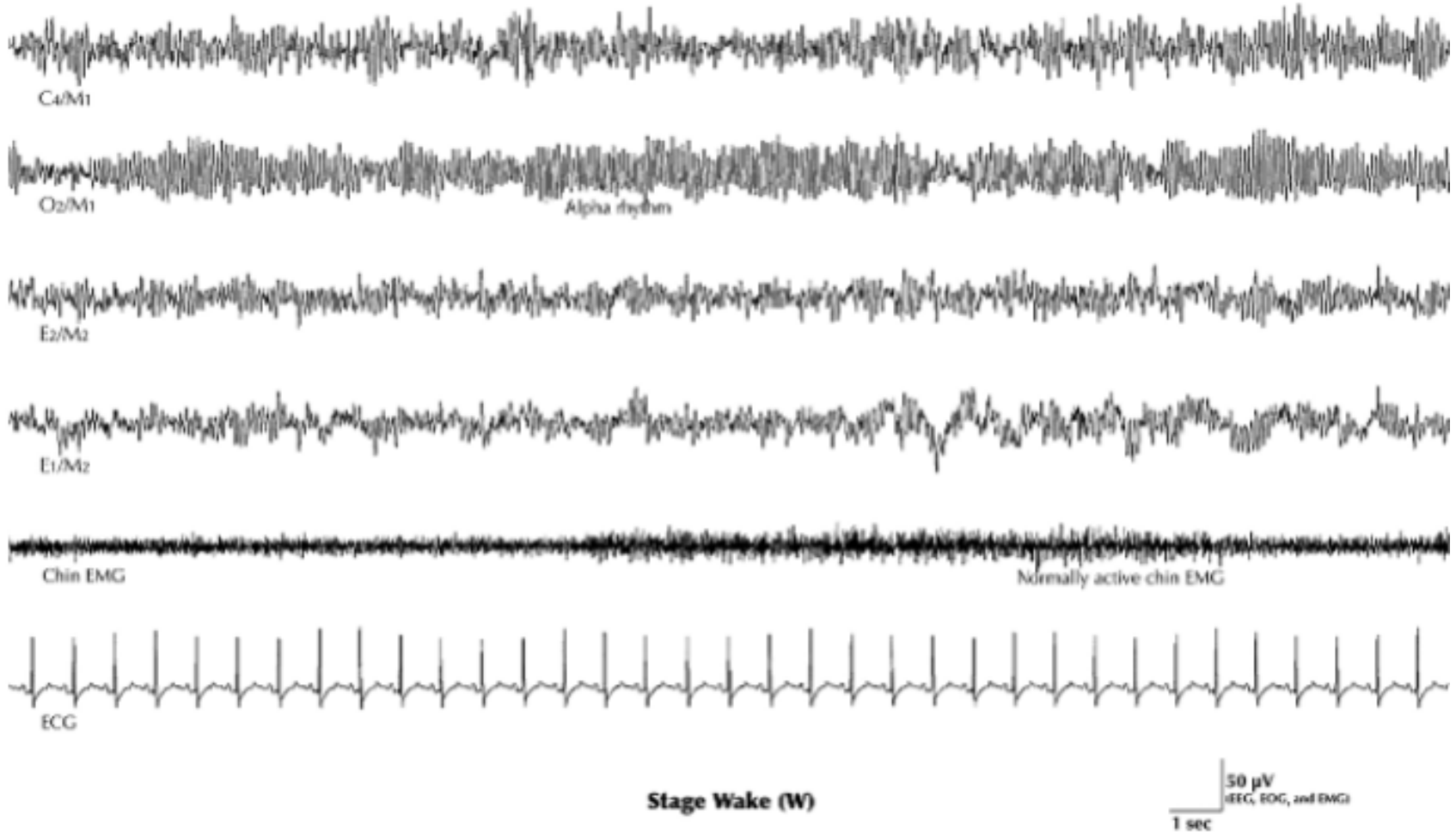
EEG Frequencies

EEG Rhythm	Characteristics	Best Seen	Examples
Posterior dominant rhythm	8.5-13 Hz	Occipital	
Slow waves	0.5-2 Hz; amplitude ≥ 75 μ V	Frontal	
Spindle	11-16 Hz; duration ≥ 0.5 sec	Central	
K complex	Diphasic; large amplitude, duration ≥ 0.5 sec	Frontal	

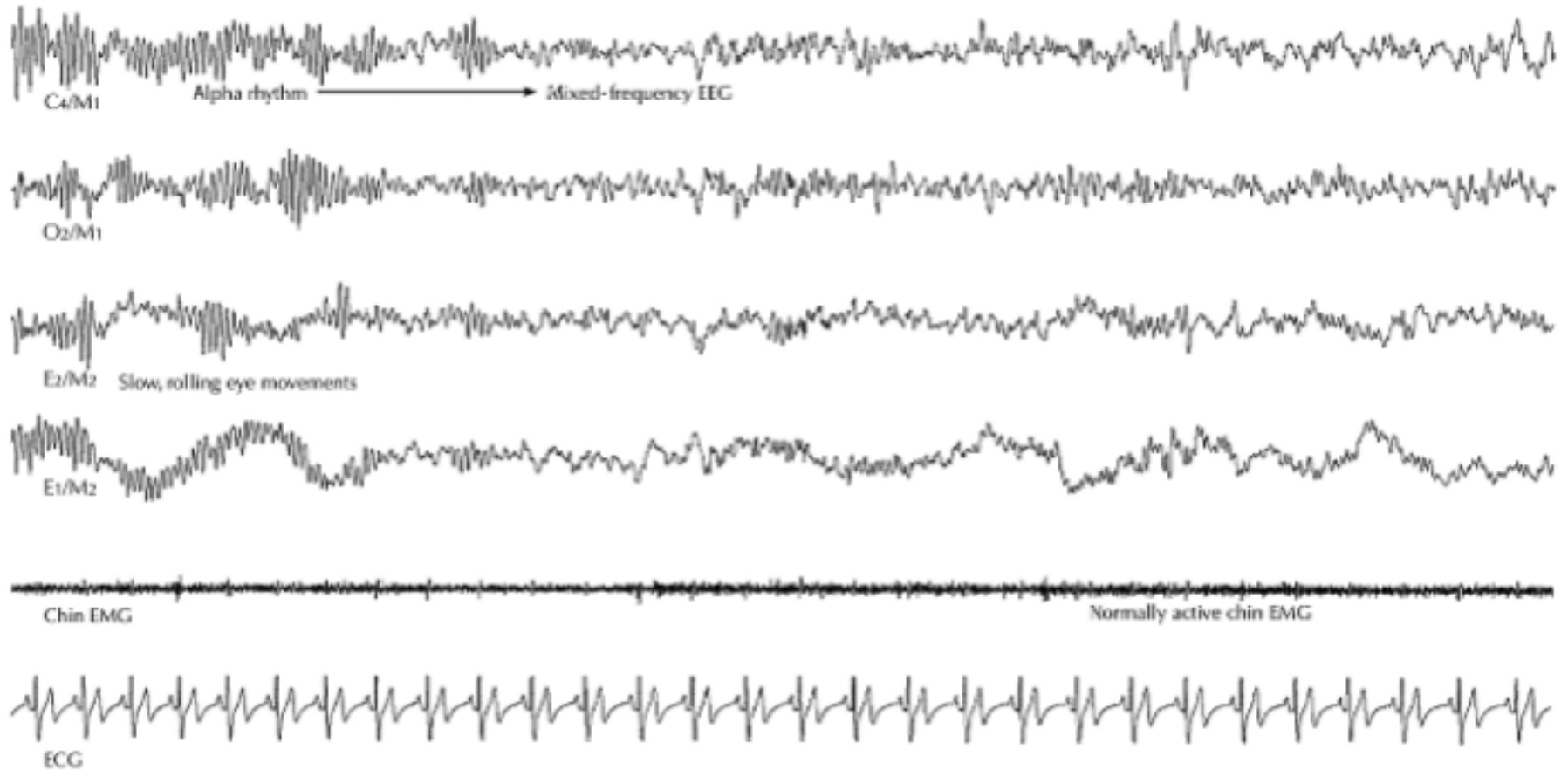
Wake



Wake – Eyes Closed



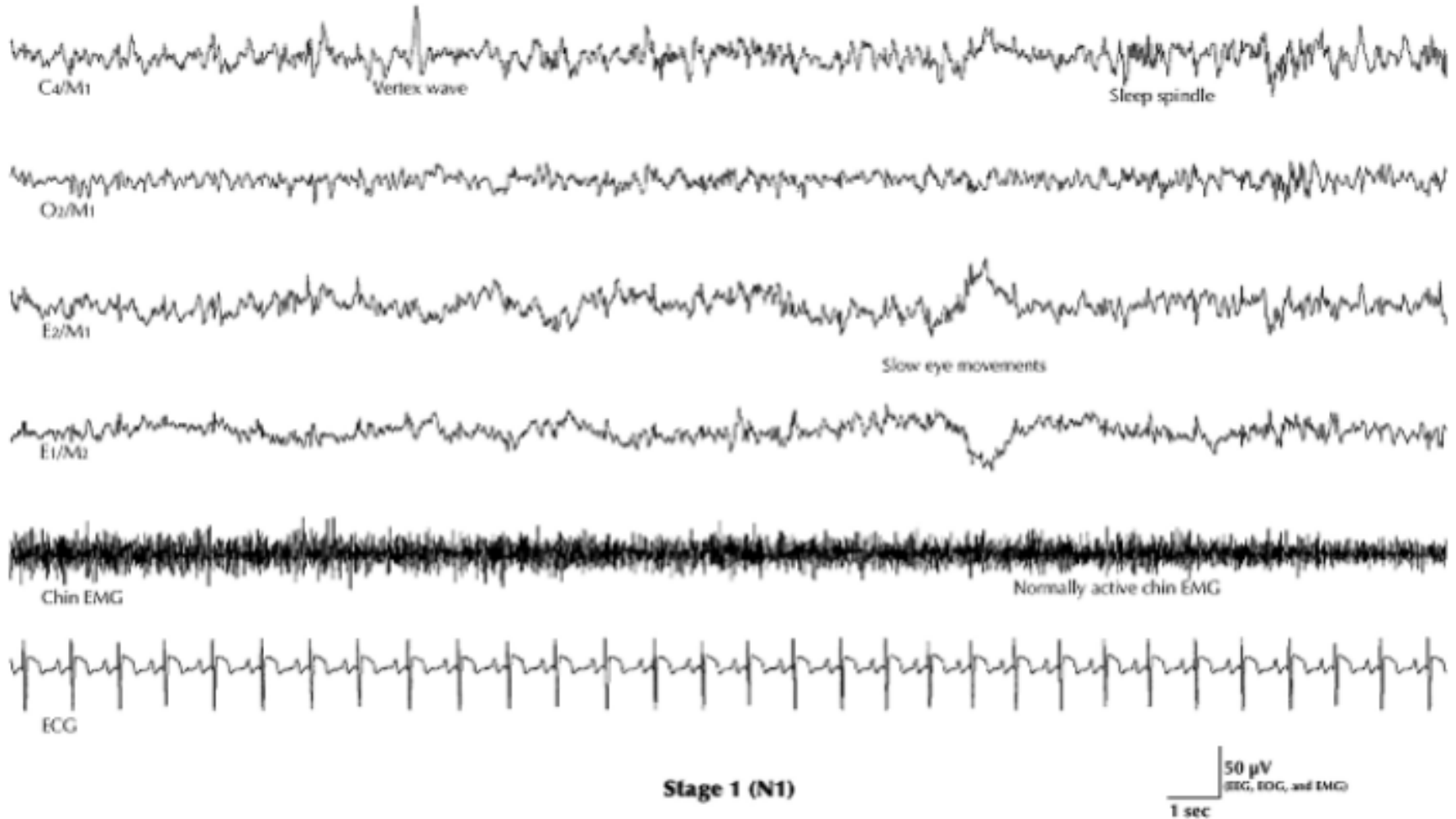
N1



Stage 1 (N1)

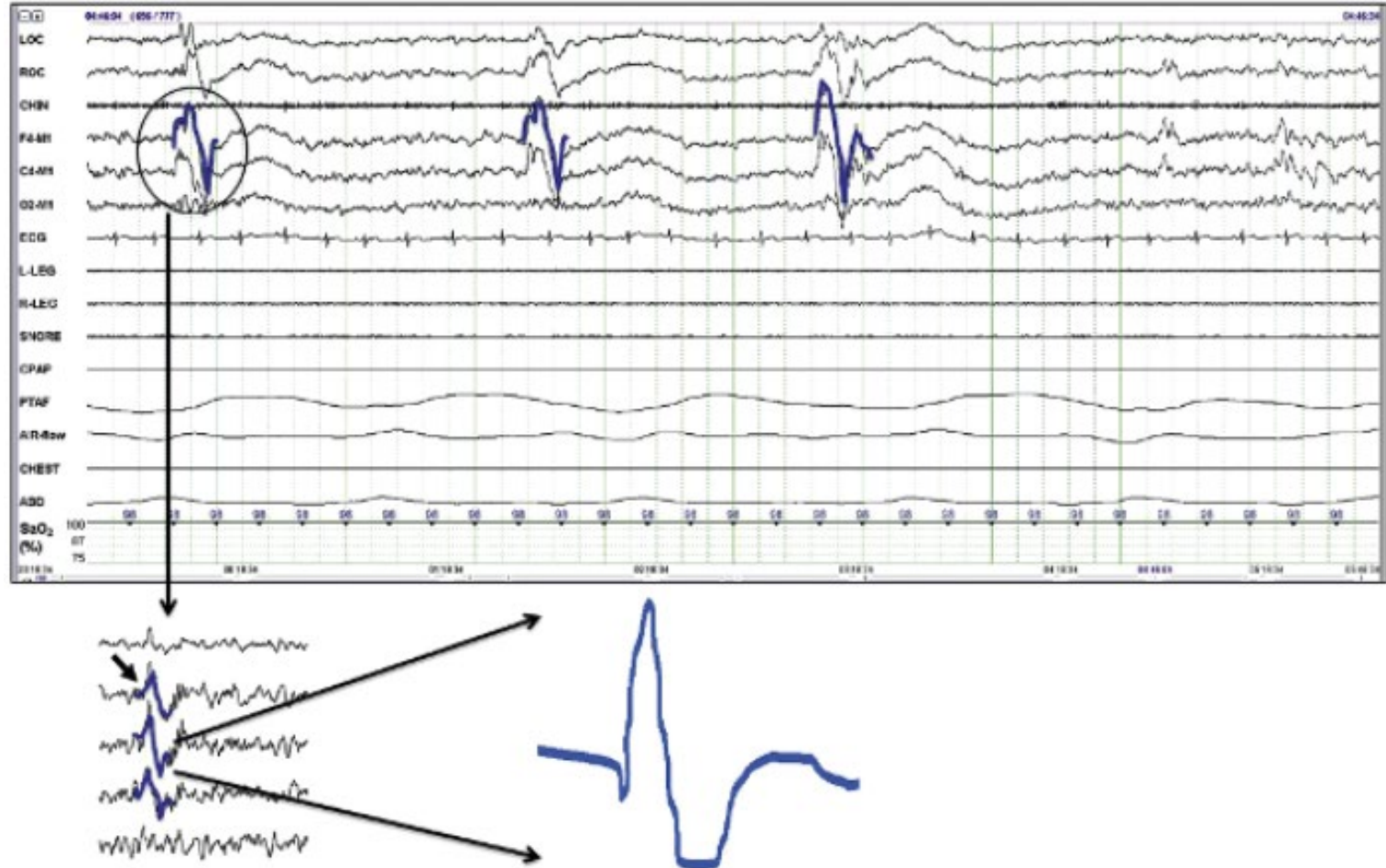
50 μ V
EEG, EOG, and EMG
1 sec

N1 Transitioning to N2

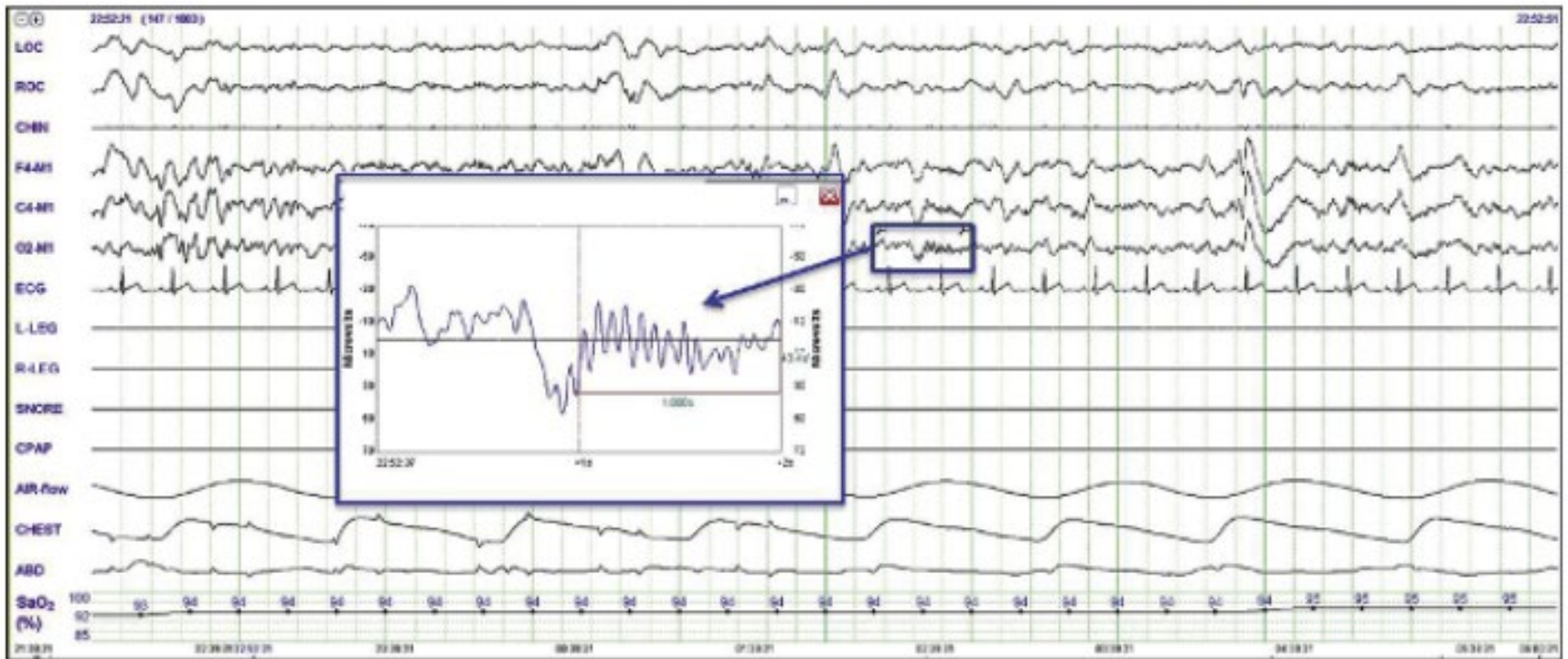


K Complexes

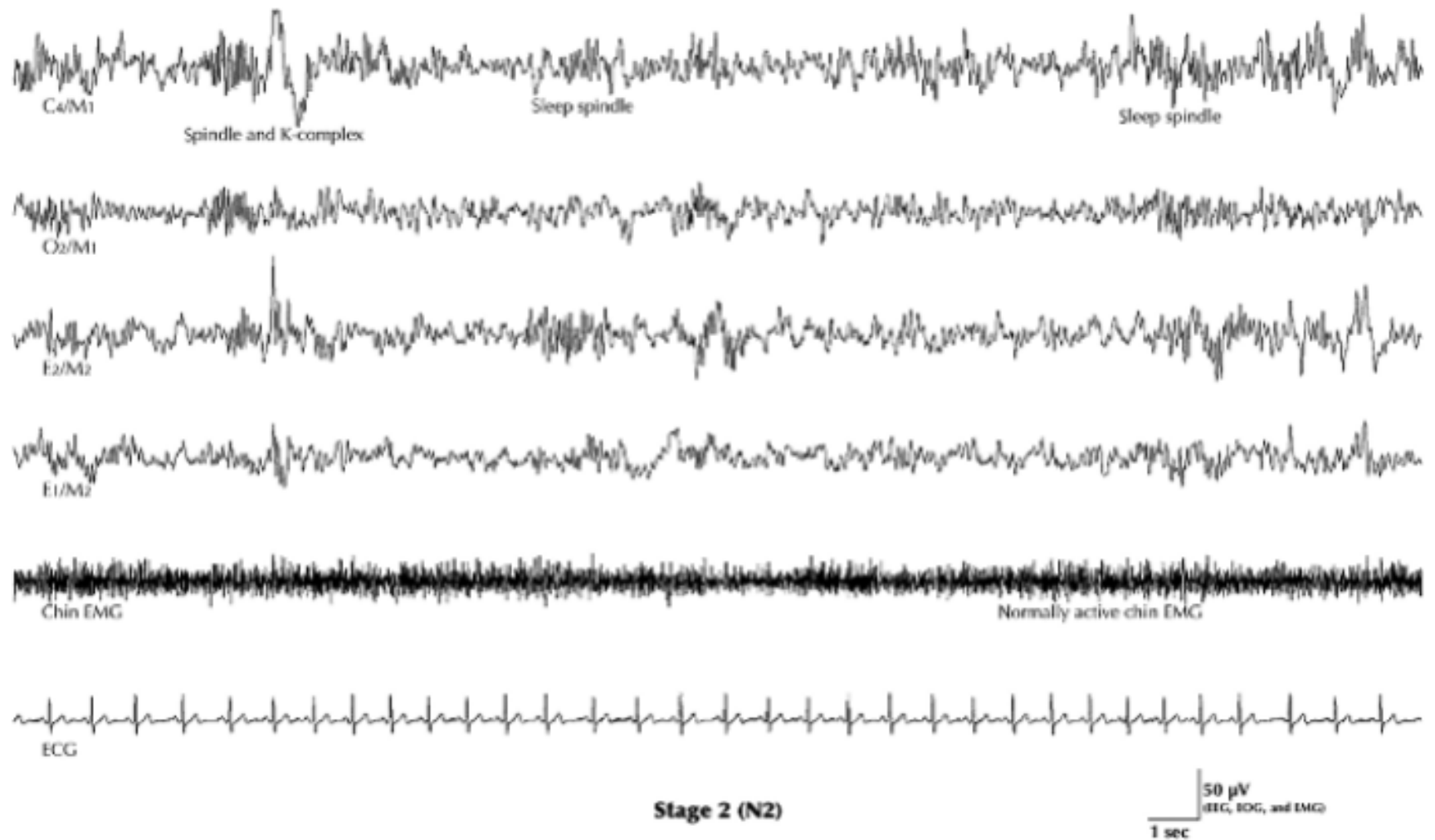
K complexes are represented by a sharp negative wave followed by a slower positive component, a unique feature of stage N2 sleep.



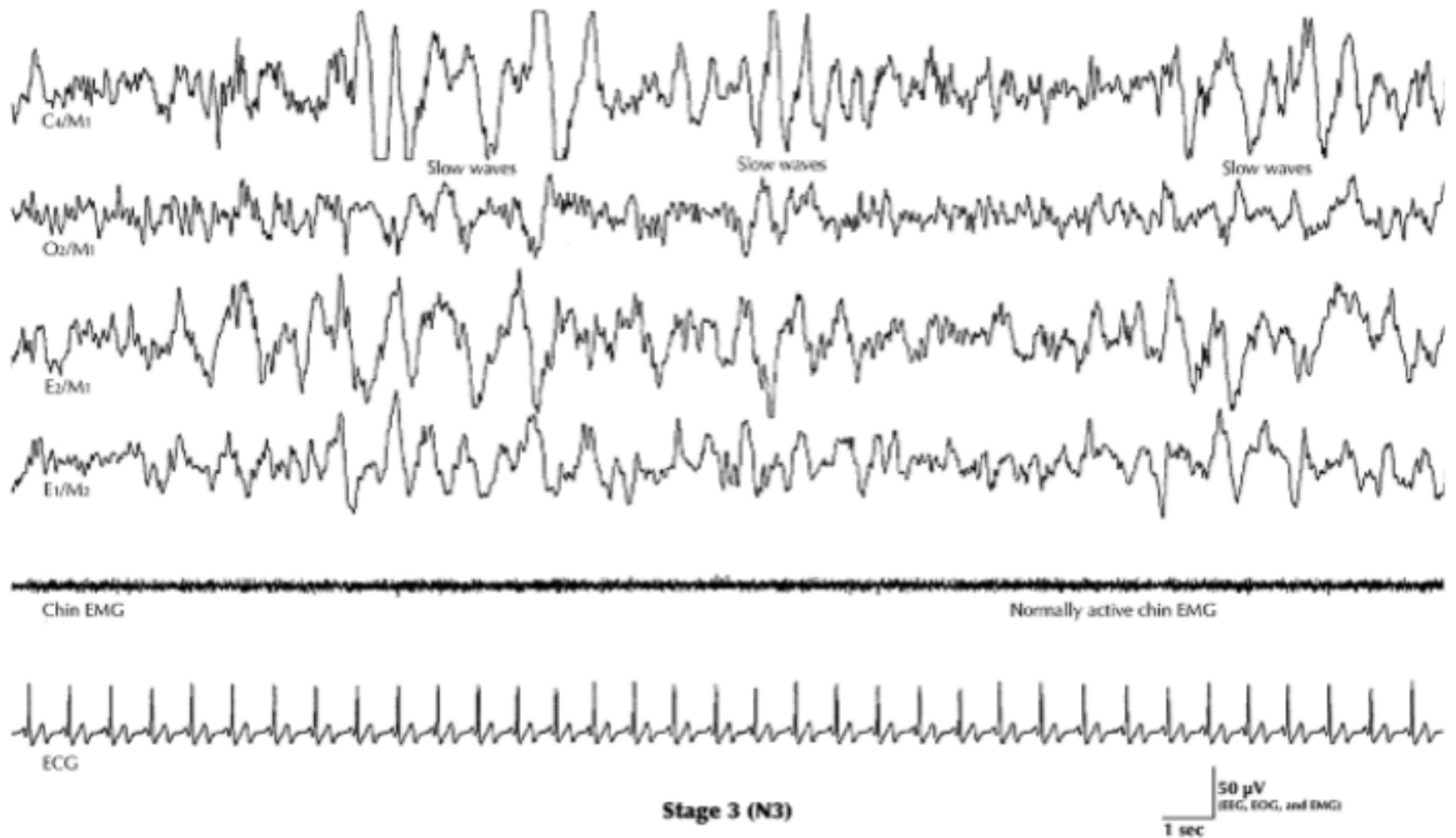
Spindles



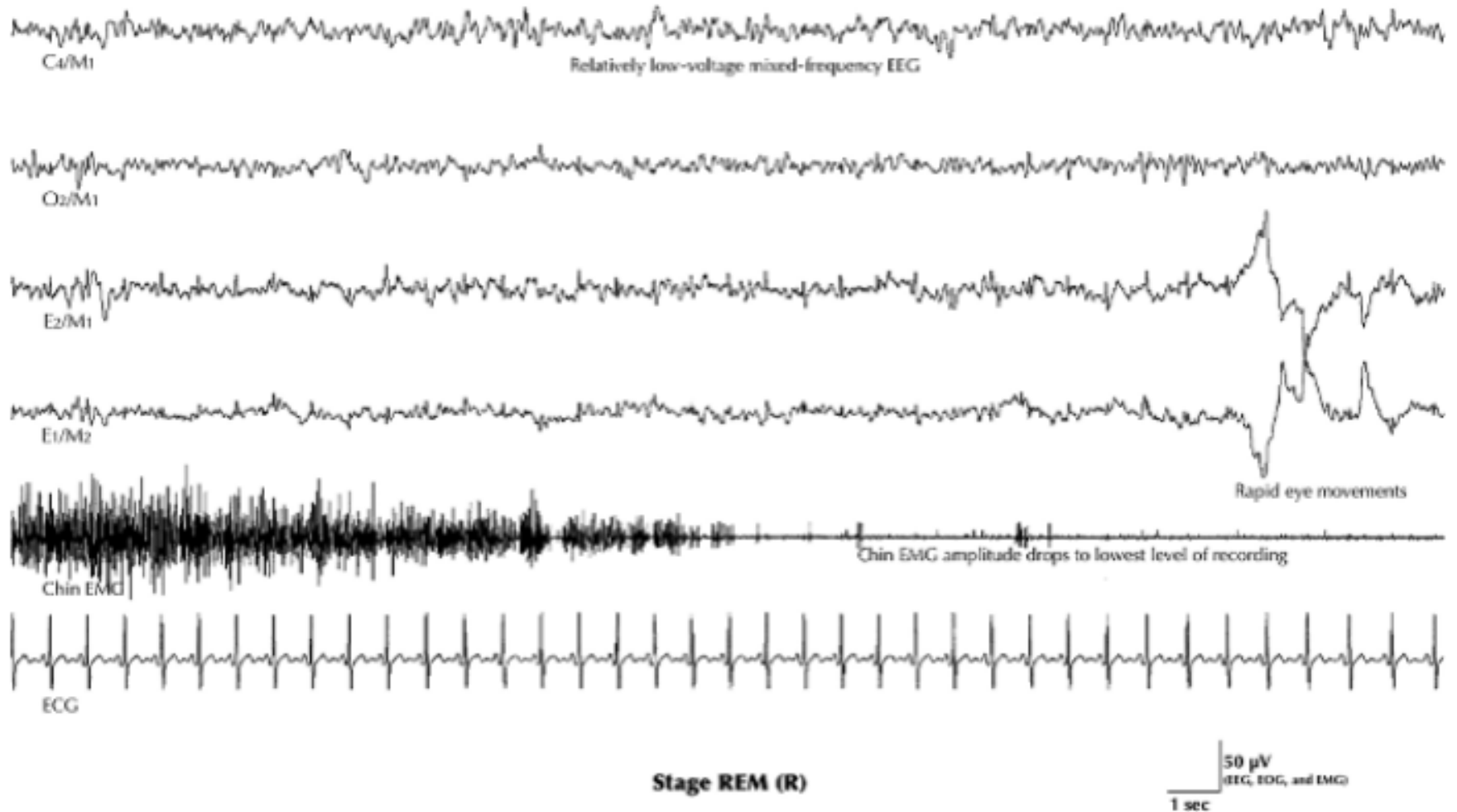
N2



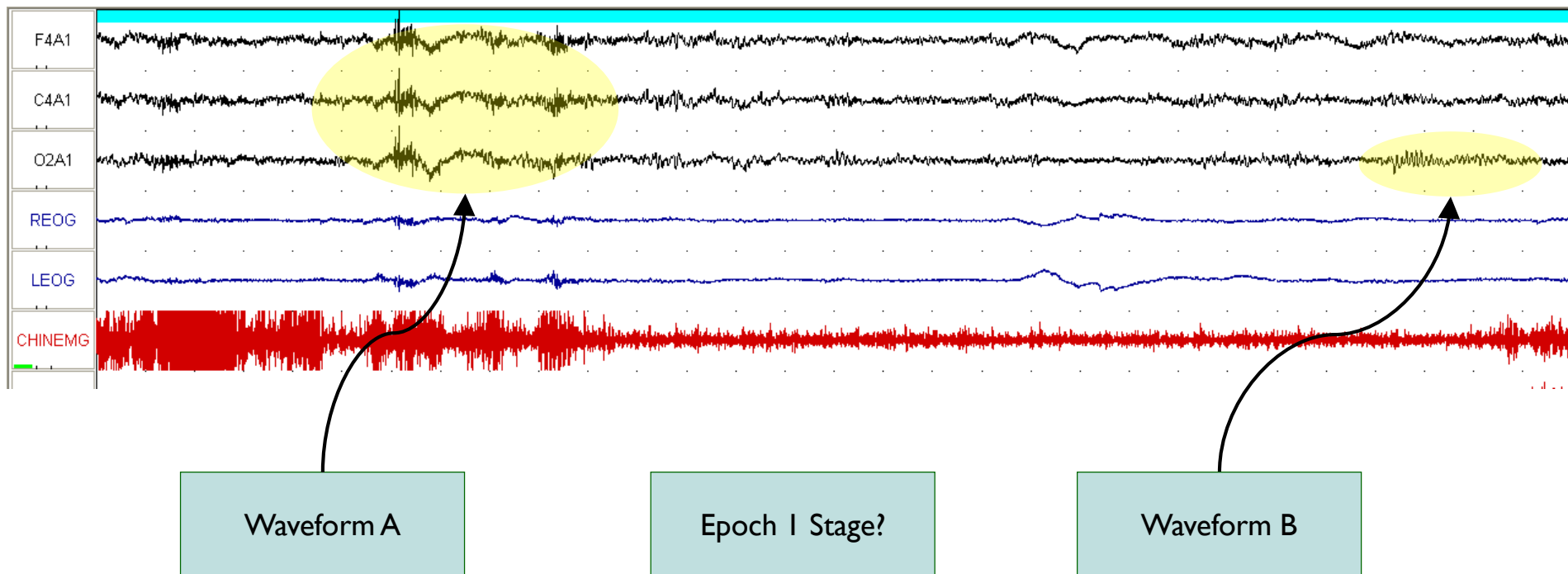
N3



REM

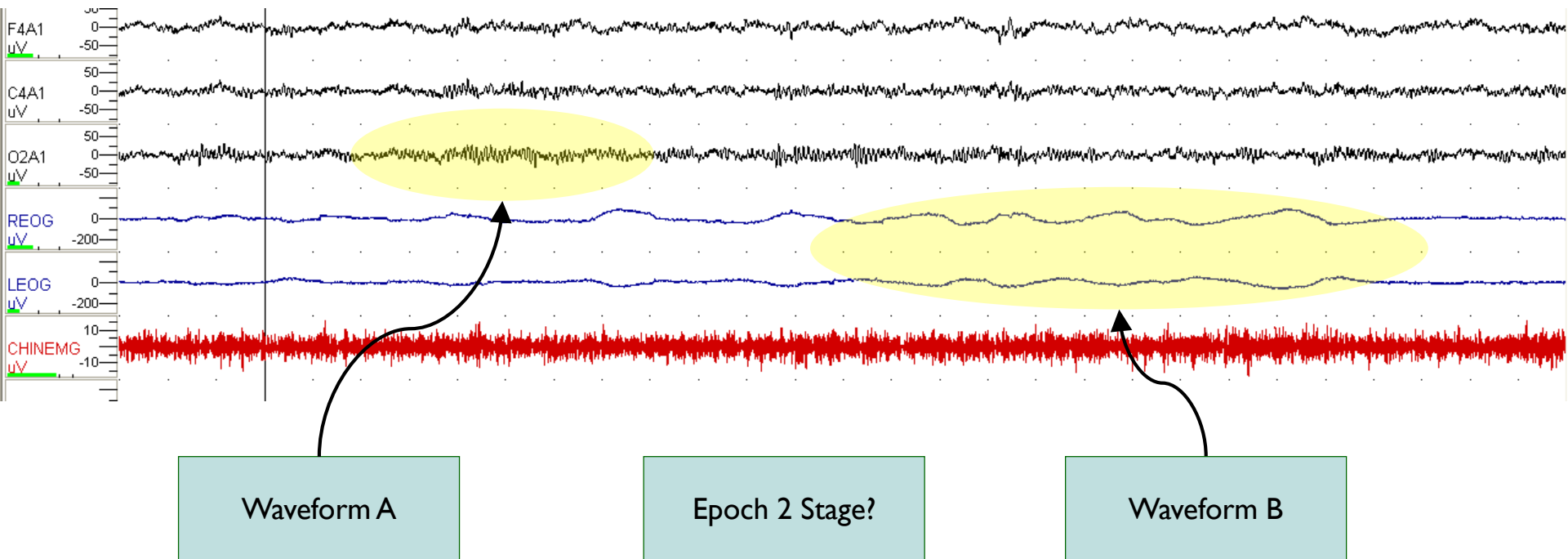


Epoch 1



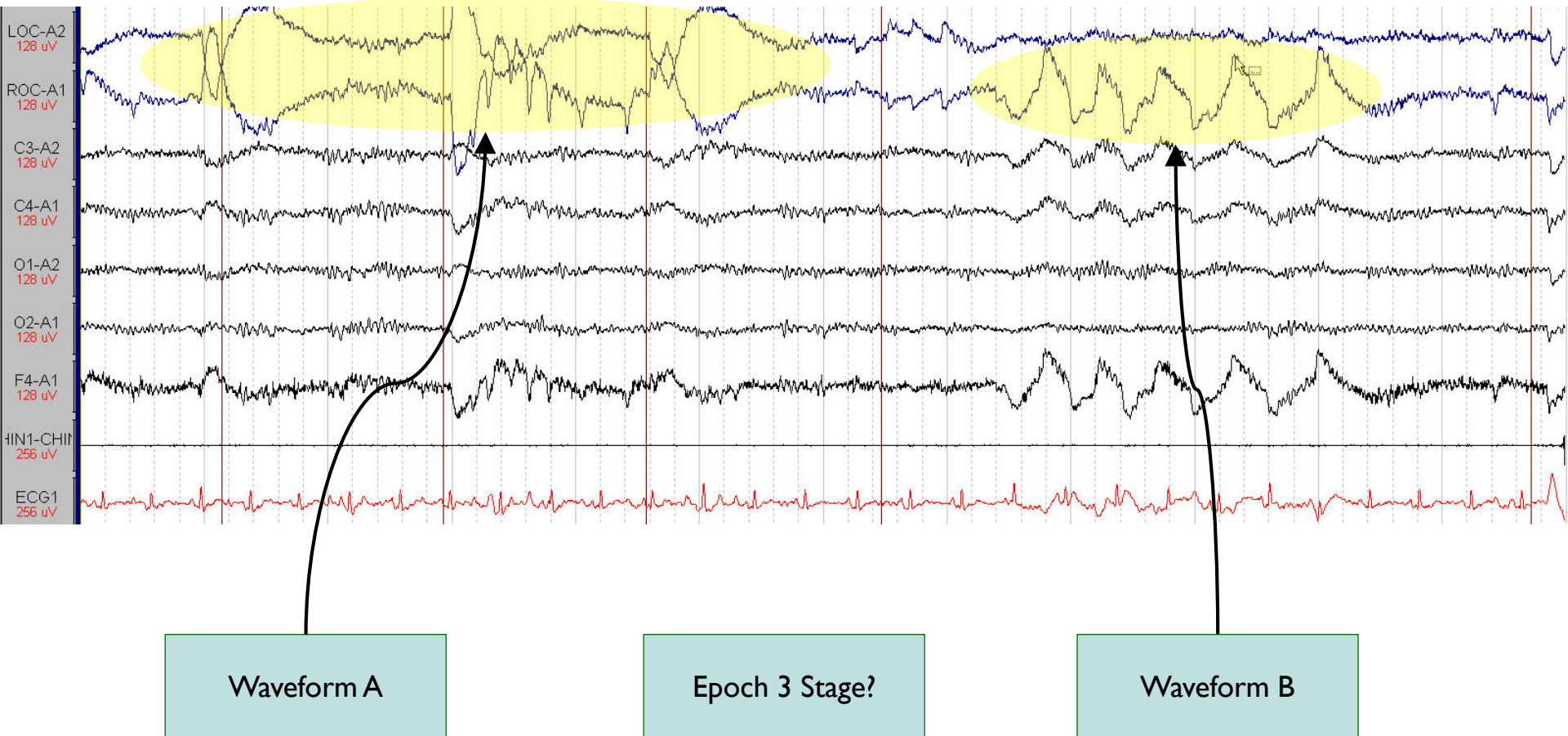
30 seconds per screen

Epoch 2



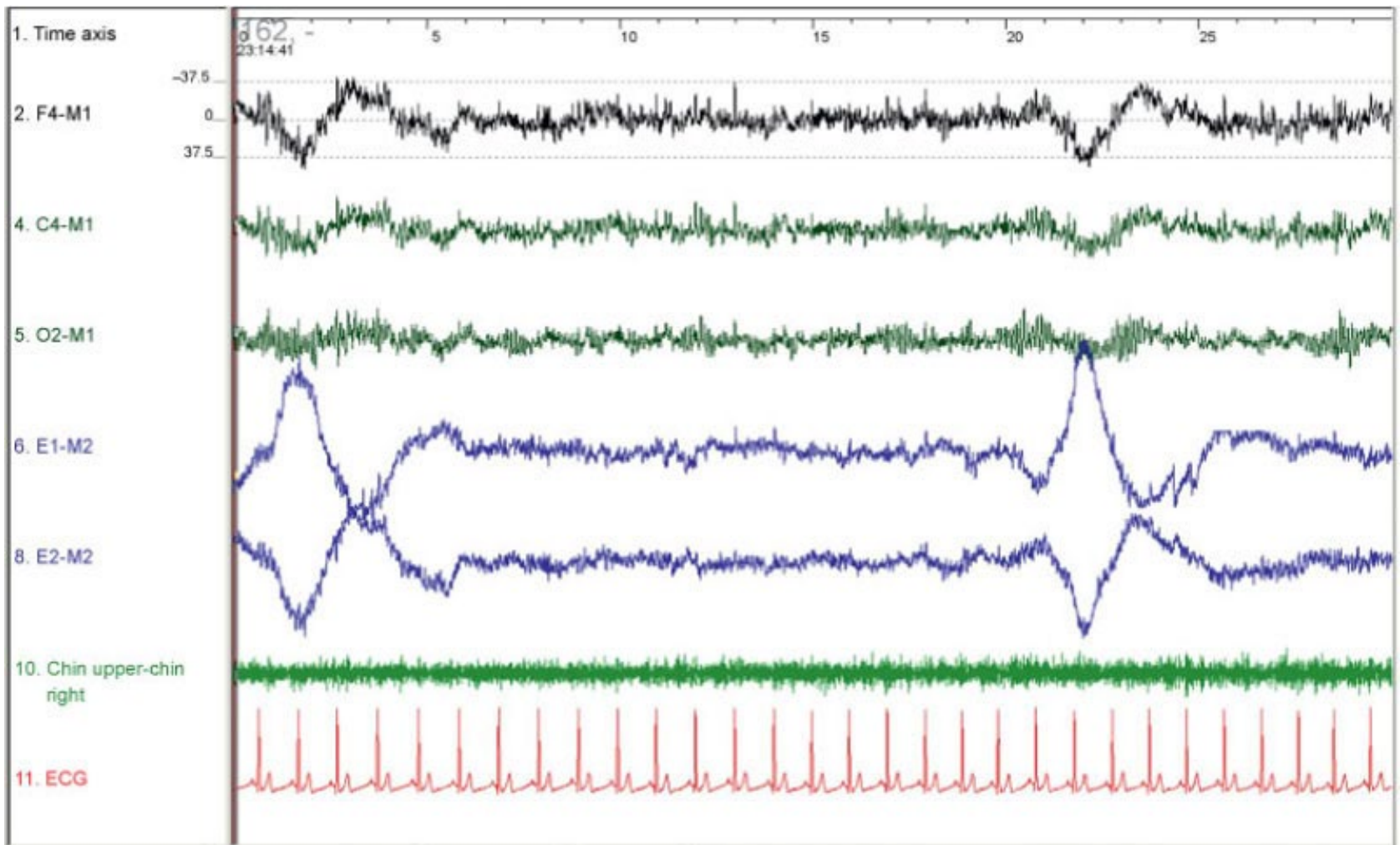
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Epoch 3

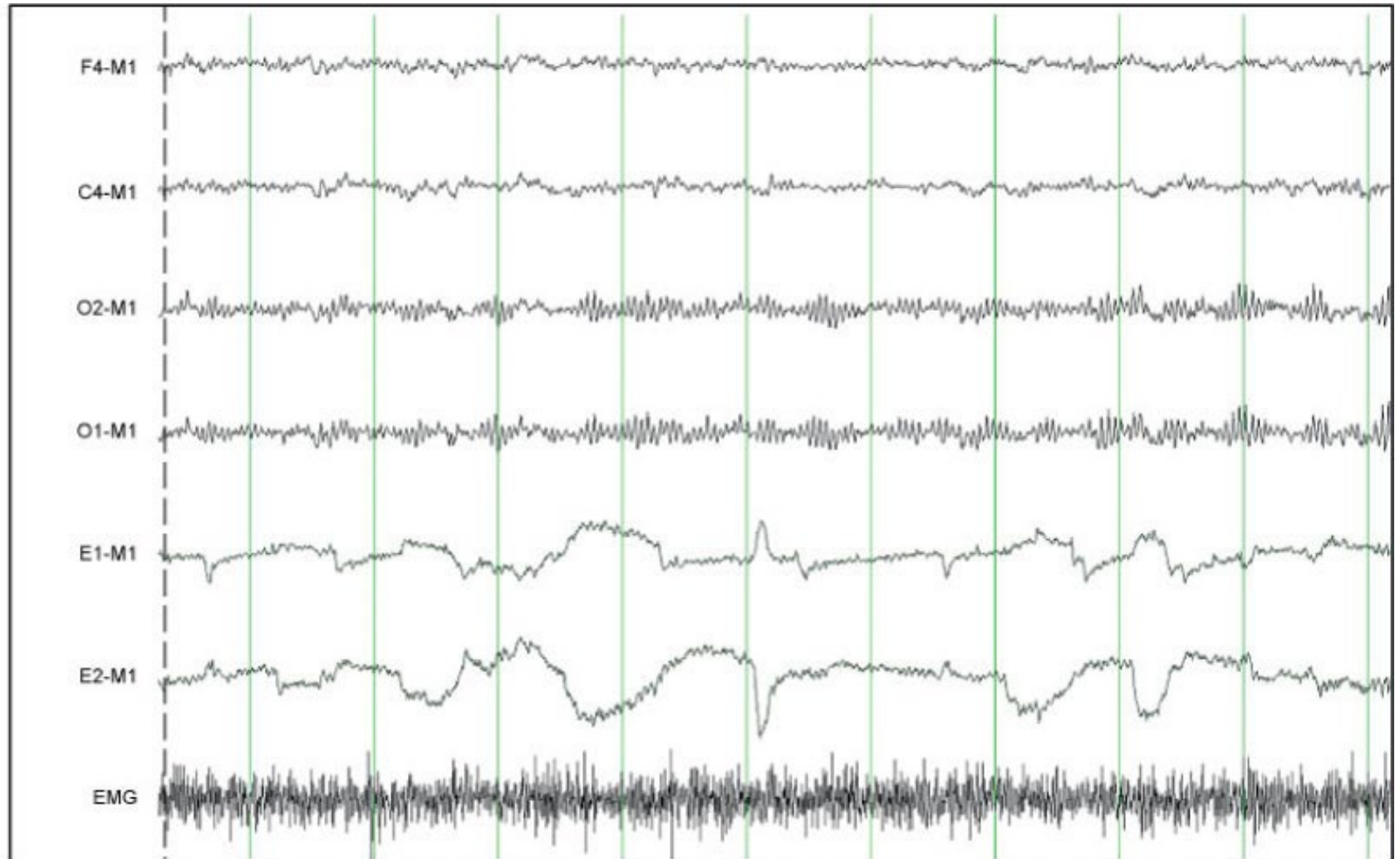


30 seconds per screen

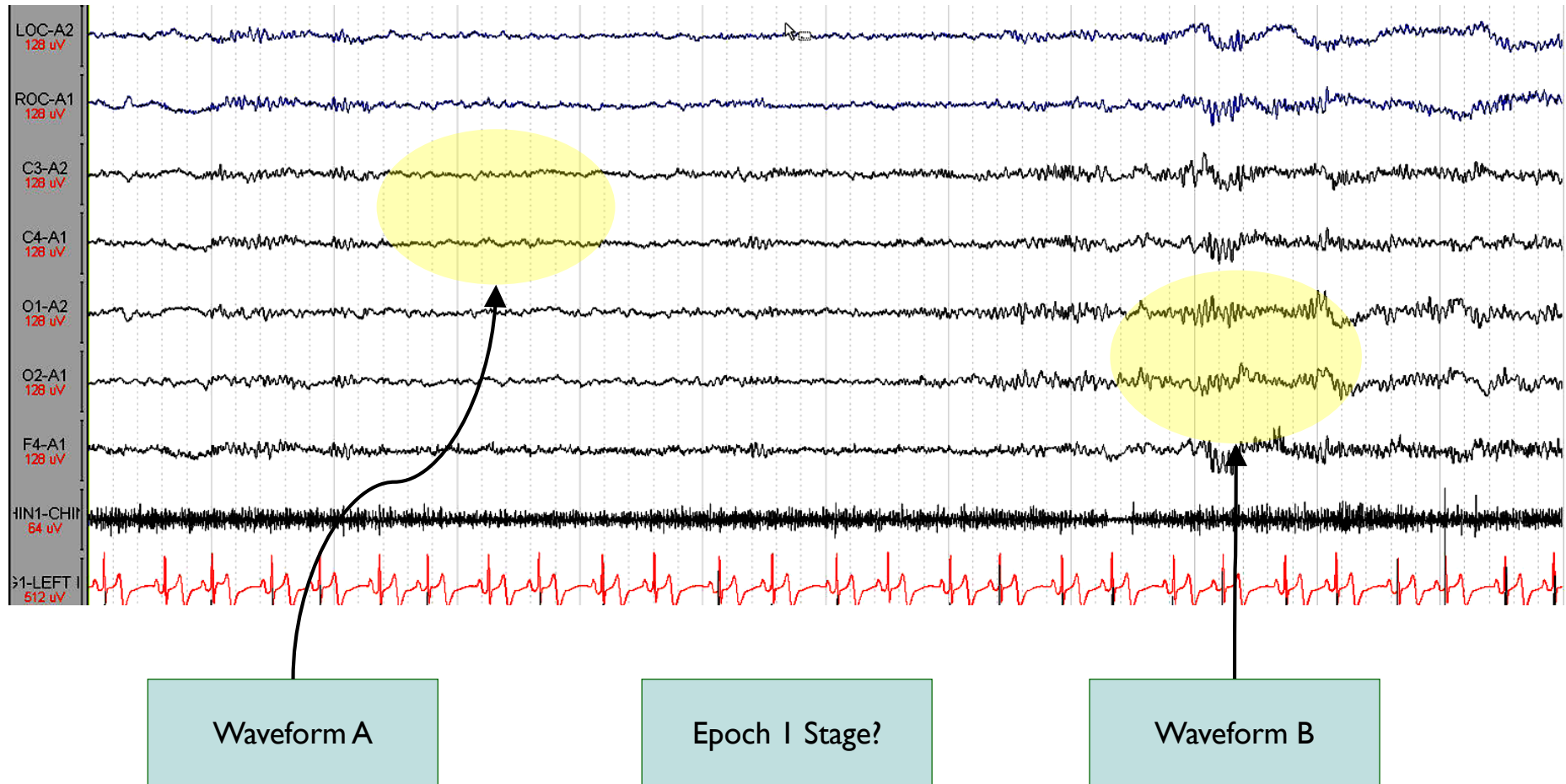
Epoch 4



Epoch 5

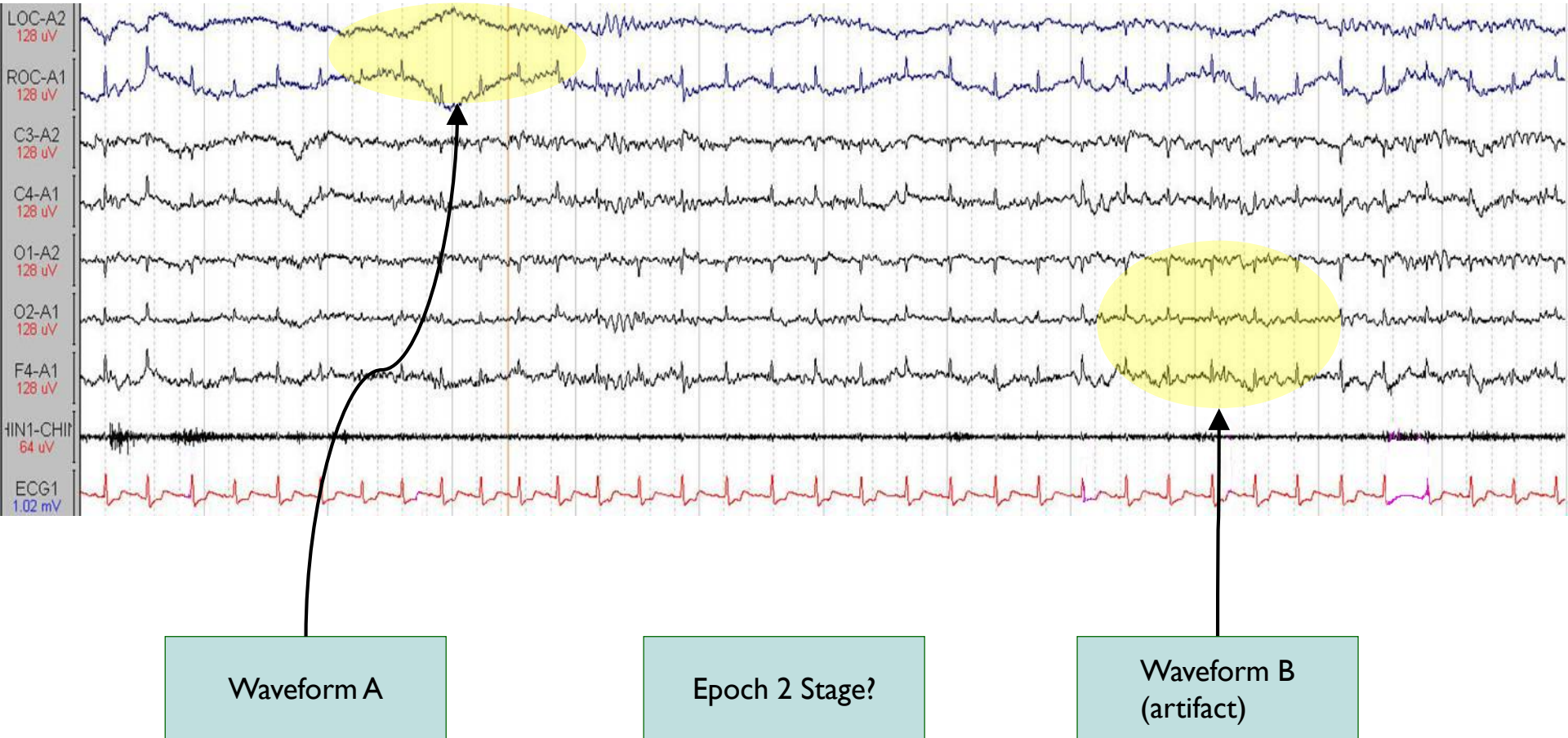


Epoch 6



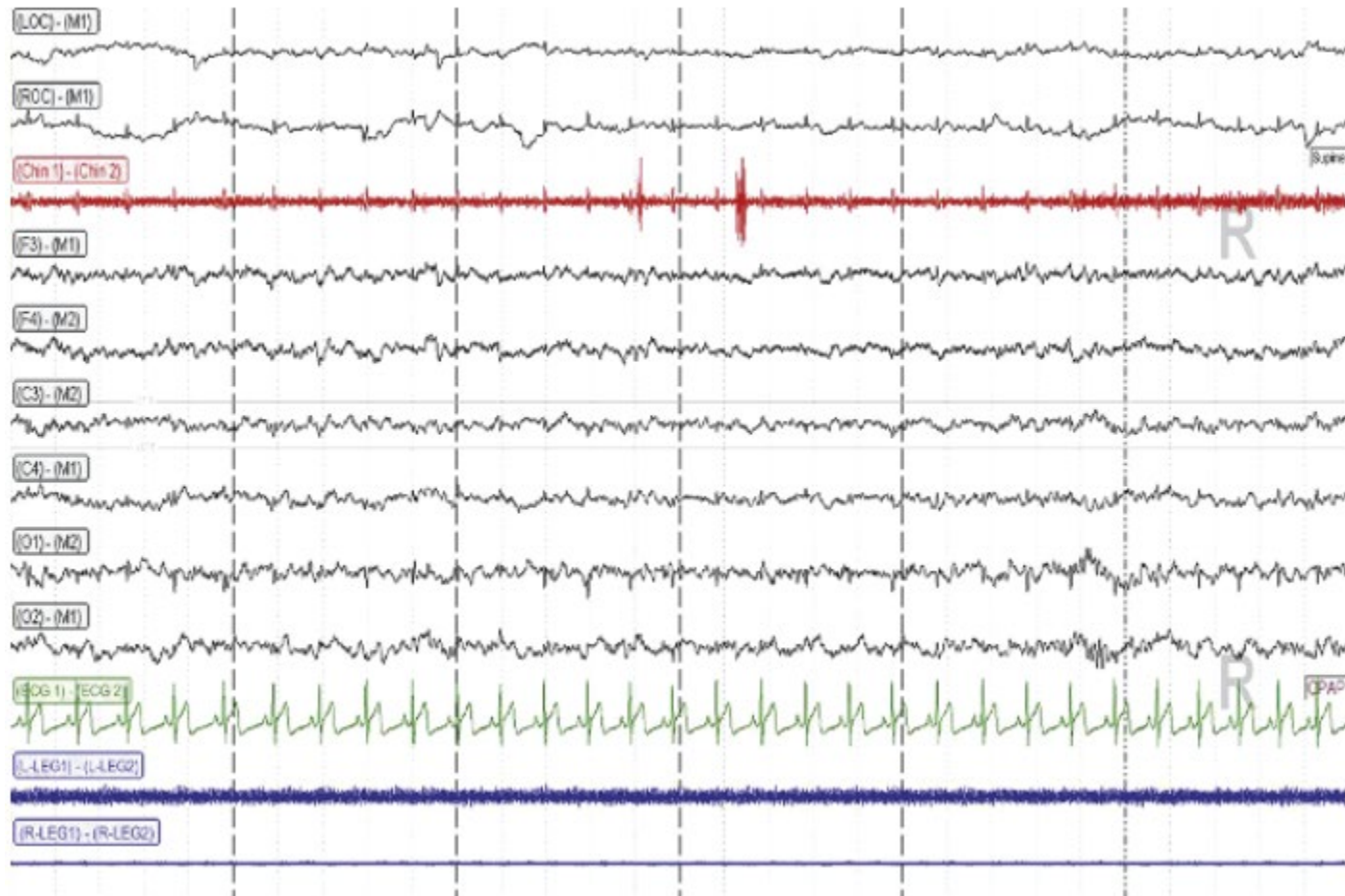
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Epoch 7

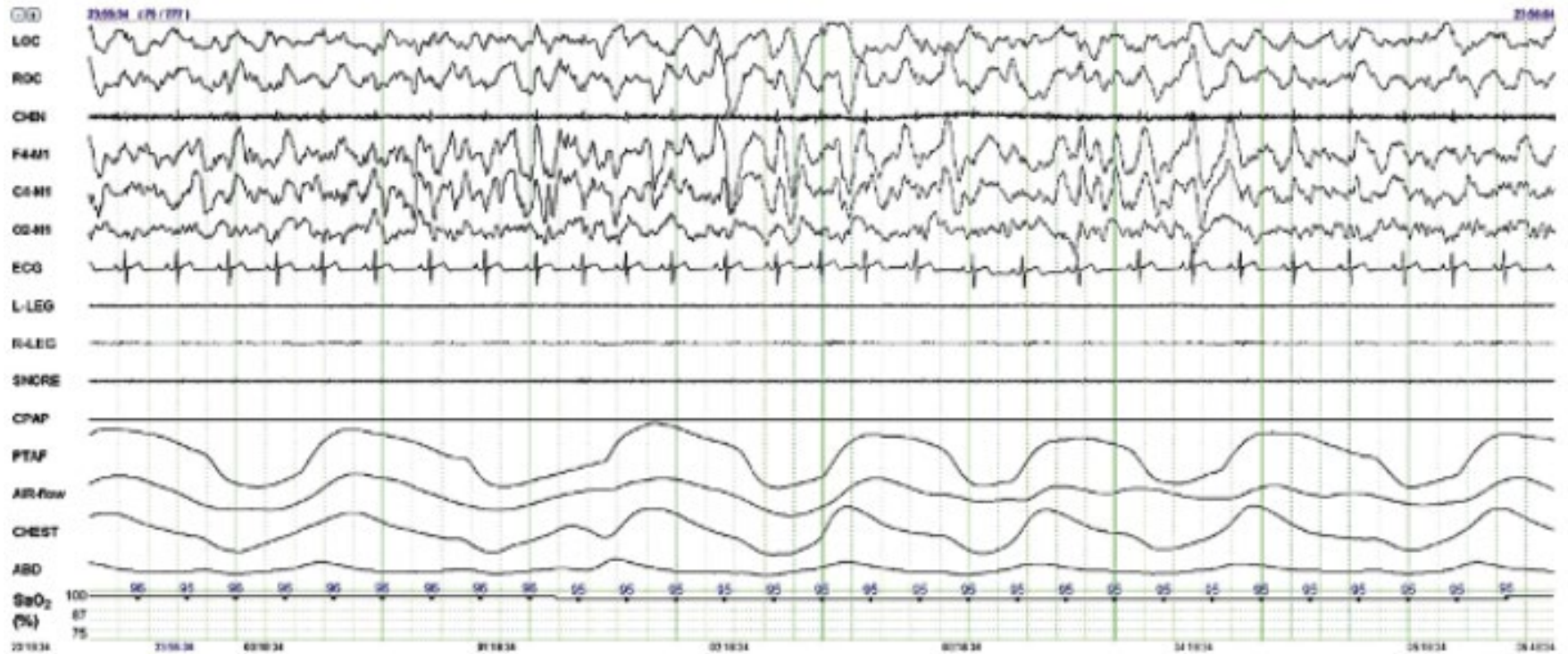


30 seconds per screen

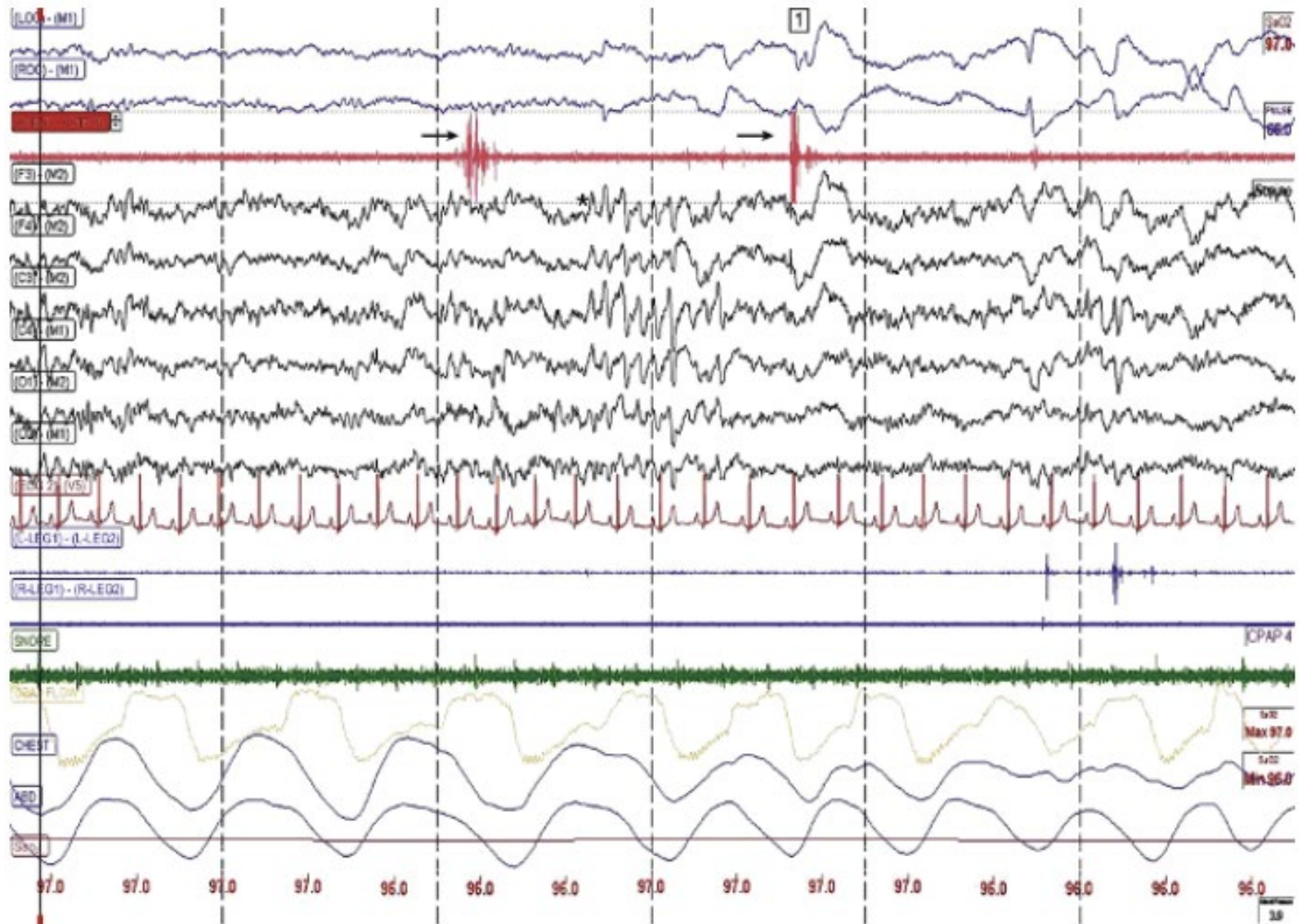
Epoch 8



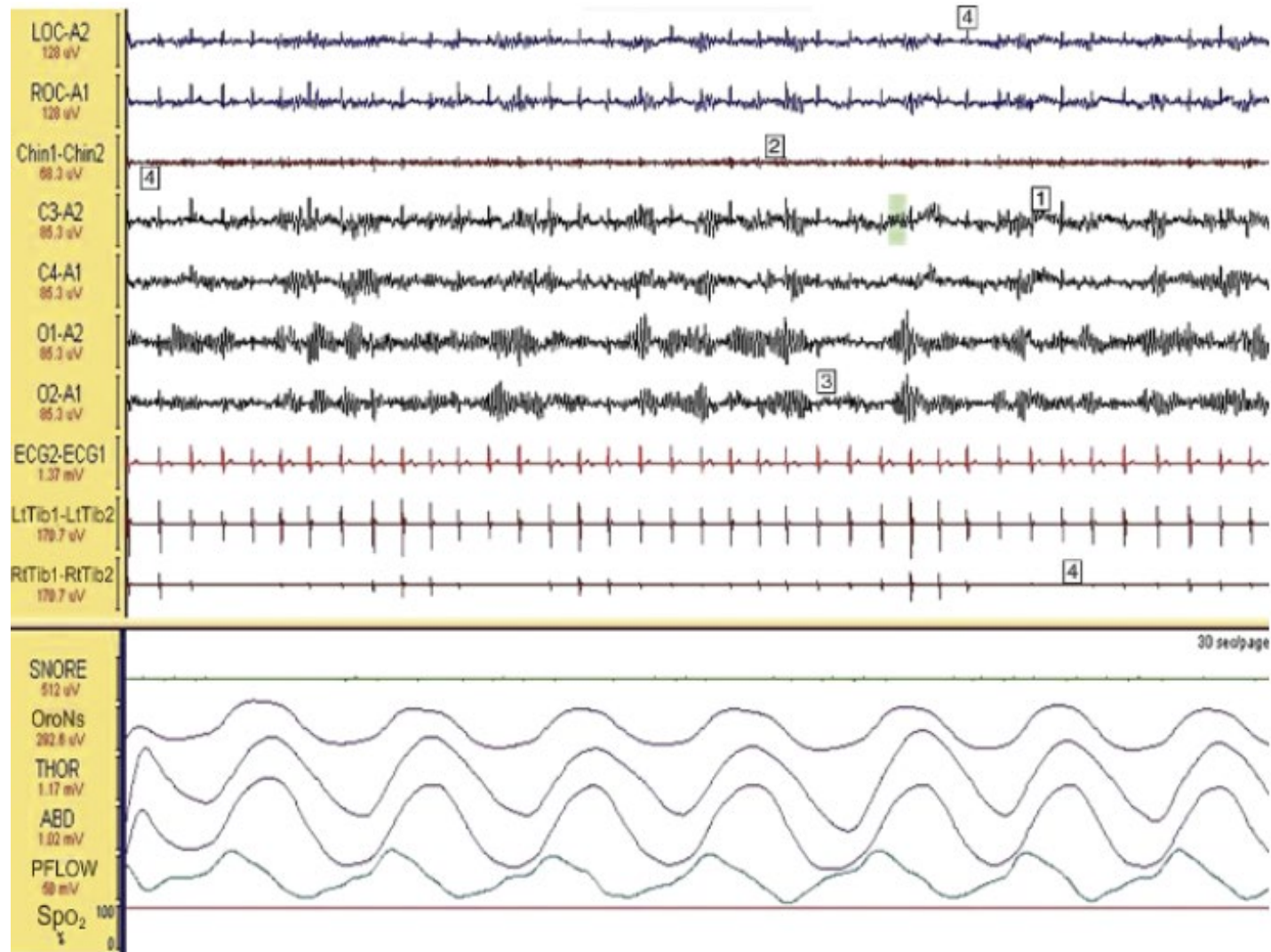
Epoch 9



Epoch 10



Epoch 11



Epoch 12

