

Sample Patient 2

Gender: Male
Age: 16 (DOB: Jul 7 2007)

Weight: 116 lbs
Patient Code: 945349

Height: 5 ft 5 in
BMI: 19.3

Physician Only Report

Exam Date: Sep 28 2023 16:31
Le Mente Behavioral Health

EEG Frequency Analysis

	Score	Norms	
Eyes Closed: Posterior Peak Frequency	10.9 Hz	8 - 12	
Eyes Open: Theta/Beta Ratio	0.95	< 1	
Eyes Open: Frontal Alpha Asymmetry	-1 %	-10 - 10	

Evoked Potentials (ERPs)

	Score	Norms	
Visual Processing	188 ms	P2 < 200	
Auditory Processing	128 ms	P2 < 200	
Attention / Vigilance	400 ms	P3 < 400	
Information Processing / Working Memory	416 ms	P3b < 420	

Behavioral Motor Test

	Score	Norms	
Reaction Time	459 ms	350 - 500	
Reaction Time Variance	10.2 ms	< 10	
Missed Responses	5.8 %	<= 6	
Wrong Responses	1 %	<= 4	

Physician Summary - Key Findings

Normal response time to visual and cognitive stimulus.
Normal level of focus and cognitive processing capacity.

Delayed P3b latency under go-nogo condition. Reduced neuronal capacity associated with cognition, information processing and working memory.
Low working memory scores reflect an inability to categorize stimuli, problems with information processing, parietal lobe dysfunction, inattention, lack of focus, cognitive decline, concussion/brain injury. Possible signs of Inattention / Lack of Focus; Possible signs of Working Memory Deficiency; Possible signs of Parietal Lobe Dysfunction; Possible signs of Temporal Lobe Dysfunction;

Normal level of theta frequencies central brain activity.
Normal level of beta frequencies central brain activity;

Normal peak alpha frequencies have been correlated with good information processing capacity and semantic memory.

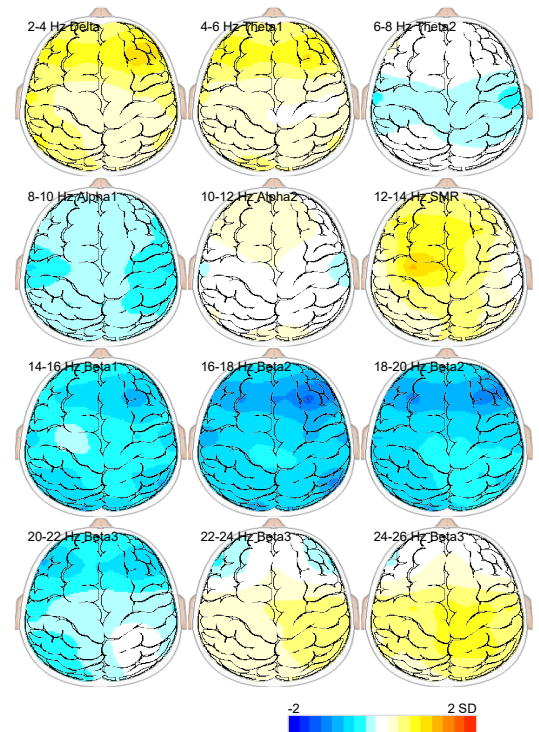
Alpha Interhemispheric asymmetry is in normal level.

Physician Summary is provided by NeuroWave.com and is based solely on the BrainView electrophysiology biomarkers and existing medical literature. Clinical suggestions are made without knowledge of the patient's conditions, medications, or other medical lab values.

Self-Assessment Questionnaire

Difficult to find words or understand words: 5 of 5
Decreased Attention / Distracted: 5 of 5
Difficulty multitasking/ disorganized: 5 of 5
Difficulty following directions: 5 of 5
Addiction / substance use: 5 of 5
Change in handwriting: 4 of 5
Depression / Feelings of sadness: 4 of 5
Anxiety, Feelings of worry: 1 of 5
Can't find the correct word to convey in speech: 1 of 5
Don't have enough energy to get moving in the morning and sustain: 1 of 5
Chronic Pain: 1 of 5
Do things that result in isolation or distancing from others: 3 of 5
Aggressive, or hostile impulsivity: 1 of 5

Eyes Open - Headmaps - Z Scored



Physician's Notes:

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The electroencephalogram (EEG) has been a medical standard for the evaluation of general brain health and overall function. This test detects abnormalities in the brain waves, or in the electrical activity. The brain is the most important organ in the body at the center of the nervous system and controls all parts of the body. An EEG can detect minuscule abnormalities that occur as a result of the normal ageing process, mental diseases or disorders, brain insults due to trauma, and abnormal changes due to exposure to toxins, substance abuse, and acute or chronic events.

Eyes Closed: Posterior Peak Frequency: 10.9 Hz

Reference: 8 - 12 Hz



Eyes Open: Posterior Peak Frequency: 12 Hz

Marker of Cognitive Performance

Reference: 8 - 12 Hz



Eyes Open: Theta/Beta Ratio: 0.95

Marker of Inattention

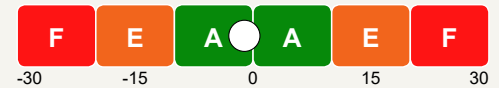
Reference: < 1



Eyes Open: Frontal Alpha Asymmetry: -1 %

Marker of Depression, Anxiety

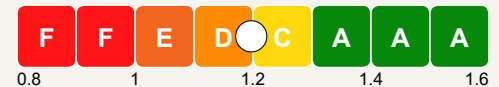
Reference: -10 - 10 %



Eyes Closed / Open Alpha Ratio: 1.2

Marker of Impaired vigilance regulation

Reference: > 1.2



Eyes Open: Brain Map Source - Deviations from normality

Brodmann Area (BA)	Frequency	Z-Score	Function
BA Left 6, 8 (9, 46)	18-20 Hz Beta2	-4.1 SD	Working memory; Impulsivity/Response inhibition
BA Left 6, 8 (9, 46)	16-18 Hz Beta2	-3.8 SD	Working memory; Impulsivity/Response inhibition
BA Left 38, 44, 45 (47, 46)	20-22 Hz Beta3	-3.5 SD	Language production & comprehension; Working memory, selective attention
BA Left 1, 2, 3, 4	12-14 Hz SMR	3.3 SD	Short-term memory; Coordination
BA Right 6, 8 (9, 46)	14-16 Hz Beta1	-3.1 SD	Impulse control/Impulsivity

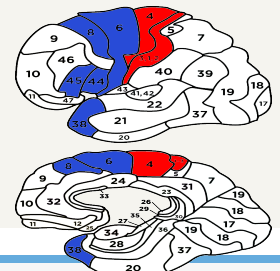
Eyes Closed: Brain Map Source - Deviations from normality

Brodmann Area (BA)	Frequency	Z-Score	Function
BA 6, 8 (9, 10, 32, 33)	16-18 Hz Beta2	-3.2 SD	Focus; Attention; Motivation
BA 1, 2, 3, 4, 5 (6, 24)	14-16 Hz Beta1	-2.4 SD	Short-term memory; Anxiety; Sleep quality
BA Right 1, 2, 3, 4	18-20 Hz Beta2	-2.3 SD	Non-verbal memory; Coordination
BA Left 17, 18, 19	4-6 Hz Theta1	2.1 SD	Right visual field

Deviations < 1.5 +-SD are in normal range; Deviations > 6 +-SD are not considered due to likelihood of artifact.

Normal peak alpha frequencies have been correlated with good information processing capacity and semantic memory.

Examination Duration: 25 min 40 sec



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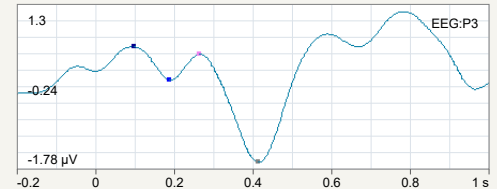
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Event-related potentials (ERP) are also referred to as evoked potentials (EP) and are a measurement of the brain's direct response to a specific sensory, cognitive, or motor event. ERPs have the ability to measure (to the millisecond) the speed in which the brain is able to process this information. This fast-paced processing is what allows us as humans to receive, filter, and process billions of pieces of information in order to make split-second decisions every second of every day. Due to the sensitivity of ERP testing, we are able to detect changes in this processing speed that are related to cognitive decline. If this testing is performed early enough, these changes can be seen before they become physically noticeable. The ERP can detect slowing in physical reaction times and decision-making skills, as well as stress disorders, memory loss, and other neurological disorders.

Visual Processing: 188 ms



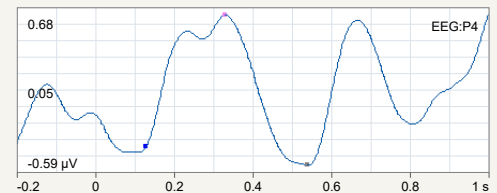
Reference: P2 < 200 ms
Amplitude: 0.08µV



Auditory Processing: 128 ms



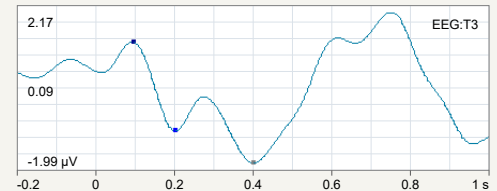
Reference: P2 < 200 ms
Amplitude: -0.33µV



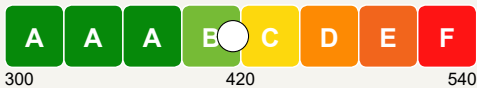
Attention / Vigilance: 400 ms



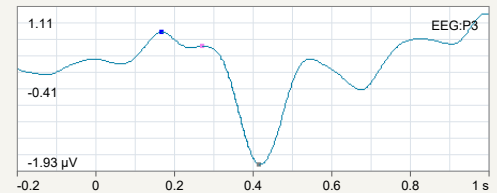
Reference: P3 < 400 ms
Amplitude: 2.36µV



Information Processing / Working Memory: 416 ms



Reference: P3b < 420 ms
Amplitude: 1.79µV



Delayed P3b latency under go-nogo condition. Reduced neuronal capacity associated with cognition, information processing and working memory.

Low working memory scores reflect an inability to categorize stimuli, problems with information processing, parietal lobe dysfunction, inattention, lack of focus, cognitive decline, concussion/brain injury. Possible signs of Inattention / Lack of Focus; Possible signs of Working Memory Deficiency; Possible signs of Parietal Lobe Dysfunction; Possible signs of Temporal Lobe Dysfunction;

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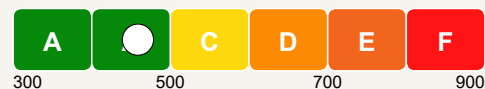
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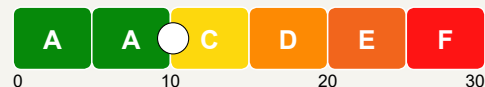
A natural process of ageing includes the decline in neuro physical and cognitive abilities. Behavior performance can be measured as it relates to the daily stressors that everyone faces, including neuro-physical, emotional and mental challenges. The observable changes can include changes in reaction time, errors in commission (how often you make mistakes), and errors in omission (how often you miss information). These performance measures can provide an accurate snapshot and an objective assessment of a patient's ability to effectively perform general or routine daily tasks and can indicate the level of decline.

Reaction Time: **459 ms**

Reference: 350 - 500 ms

Reaction Time Variance: **10.2 ms**

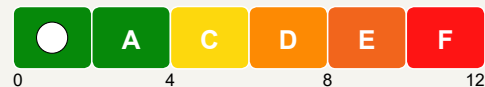
Reference: < 10 ms

Missed Responses: **5.8 %**

Reference: <= 6 %

Wrong Responses: **1 %**

Reference: <= 4 %



Normal response time to visual and cognitive stimulus.
Normal level of focus and cognitive processing capacity.

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Medications:

Wellbutrin XL (bupropion hcl) 150 mg

Patient History:

Difficult to find words or understand words: 5 of 5; Decreased Attention / Distracted: 5 of 5; Difficulty multitasking/ disorganized: 5 of 5; Difficulty following directions: 5 of 5; Addiction / substance use: 5 of 5;

Acquisition Summary:

Montage: Common Reference 21 channels;
Sampling Rate: 500Hz; High Pass Filter: 0.5Hz; Low Pass Filter: 60Hz; Notch Filter: 60Hz;
Examination Duration: 25 min 40 sec;
Test Type: Routine EEG, including spike annotations; ERP;
The patient was awake with eye open for an adequate period of time during the tracing; During the eye closed test stage, the patient became drowsy;

Physician Summary - Key Findings:

Normal response time to visual and cognitive stimulus.
Normal level of focus and cognitive processing capacity.
Delayed P3b latency under go-nogo condition.
Normal level of theta frequencies central brain activity.
Normal level of beta frequencies central brain activity;
Normal peak alpha frequencies have been correlated with good information processing capacity and semantic memory.
Alpha Interhemispheric asymmetry is in normal level.

Assessment:

Reduced neuronal capacity associated with cognition, information processing and working memory (R1, R2, R3);
Low working memory scores reflect an inability to categorize stimuli, problems with information processing, parietal lobe dysfunction, inattention, lack of focus, cognitive decline, concussion/brain injury (R1, R2, R3); Possible signs of Inattention / Lack of Focus (R4, R5, R6); Possible signs of Working Memory Deficiency (R7, R8); Possible signs of Parietal Lobe Dysfunction (R9, R10); Possible signs of Temporal Lobe Dysfunction (R8, R10);

EEG Technical Analysis:

Standard EEG and digital analysis: This is a digital awake and drowsy electroencephalogram utilizing the standard 10-20 international placement protocols utilizing standard montages. Computer generated spike analysis and seizure detection was performed and reviewed and paroxysmal/epileptiform activity appreciated.

Start Time	Duration	SpO2	Spike & Sharp	PolySpikes	Periodic	Suppression	BurstSuppression	Irregular
Total	25 min 40 sec	98 % (96-100)	1	3	0	10	0	29
16:31	8 min 56 sec	98 % (96-99)	1	3	0	0	0	18
16:40	10 min	98 % (97-100)	0	0	0	5	0	10
16:50	6 min 44 sec	98 % (96-100)	0	0	0	5	0	1

Spike detection software was utilized; however, this study was not performed for the diagnosis of epilepsy; automated spike detection software often identifies EEG related artifacts.

QEEG / Loreta:

The power spectral analyses were deviant from normal during awake with reduced power in Premotor cortex, Supplementary Motor Area (SMA) and especially left Frontal Lobe from 18-20 Hz (Beta2). Also reduced power during awake in Premotor cortex, Supplementary Motor Area (SMA) and especially left Frontal Lobe from 16-18 Hz (Beta2). LORETA 3-dimensional source analyses were consistent with the surface EEG and during awake showed reduced current sources in the left Inferior frontal gyrus - Pars opercularis with a minimum at 20-22 Hz (Brodmann areas 38,44,45). Reduced LORETA current sources were present during drowsy in the Premotor cortex, Supplementary Motor Area (SMA) with minimum at 16-18 Hz (Brodmann areas 6,8).

Intervention Considerations:

Aerobic Exercise (R6, R11, R12); EEG Neurofeedback / Slow Cortical Potential (SCP) (R4); Essential Fatty Acid / Arachidonic Acid (R13); Omega3 Fatty Acids (R14, R15, R16, R17, R18, R19);

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References:

- R1. Verleger. Jaskowski; (2005); Evidence for an integrative role of p3b in linking reaction to perception; Journal of psychophysiology; 19(3). 165-181;
R2. Kassow. Schubotz. Kotz; (2009); Attention and entrainment: p3b varies as a function of temporal predictability; 20 31-36;
R3. Fjell. Walhovd; (2007); Cognitive Function, P3a/P3b brain potential and cortical thickness in aging; Human brain Mapping; 28(11). 1098-1116;
R4. Johnstone; (2012); Ten years on: a follow-up review of ERP research in attention-deficit/hyperactivity disorder; Clinical neurophysiology; 124 644-657;
R5. Krause CM. et al; (2000); The effects on memory load on event related EEG desynchronization and synchronization; Clin neurophysiol; 111 2071-2078;
R6. Pontifex; (2009); Age, physical fitness, and attention: p3a and p3b; Psychophysiology; 46(2).379-387;
R7. Stroganova. Orekhova. Et al; (2008); EEG evidences of aberrant brain functioning in young children with autism; International journal of psychophysiology; 69(3). 203-204;
R8. Albrecht; (2010); Dexamphetamine-induced reduction of P3a and P3b in healthy participants; Journal of psychopharmacology; 25 1623-1631;
R9. Daffner. Scinto; (2003); Frontal and Parietal Components of a cerebral network mediating voluntary attention to novel events; 15(2). 294-313;
R10. J. Polich; (2007); Updating P300: An integrative theory of P3a and P3b; Clinical Neurophysiology; 118, 2128-2148;
R11. Palmer. Miller. Robinson; (2013); Acute exercise enhances preschoolers' ability to sustain attention; 35(4).433;
R12. Sanabria. Morales. Luque. Et al; (2011); Effects of acute aerobic exercise on exogenous spatial attention; Psychology of sport and exercise; 12(5).570;
R13. Ishikura. Et al; (2009); Arachidonic Acid Supplementation Decreases P300 Latency and Increases P300 Amplitude of ERP in Healthy Elderly Men; Neuropsychobiology; 60 73-89;
R14. Raz. Carasso. Yehuda; (2009); The influence of short-chain essential fatty acids on children with attention-deficit/hyperactivity disorder: a double-blind placebo-controlled study; J child adolesc psychopharmacol; 19 167-177;
R15. Belanger. Vanasse. Spahis; (2009); Omega-3 fatty acid treatment of children with ADHD: a randomized, double blind, placebo controlled study; Pediatric child health; 14 89-98;
R16. Sinn. Bryan; (2007); Effect of supplementation with polyunsaturated fatty acids and micronutrients on learning and behavior problems associated with child ADHD; Journal of Developmental Behavior pediatrics; 28 82-91;
R17. Voigt. Llorente. Jensen; (2001); A randomized, double-blind, placebo-controlled trial of docosahexaenoic acid supplementation in children with attention-deficit/hyperactivity disorder; Journal of Pediatrics; 139 189-196;
R18. Gustafsson. Et al; (2010); EPA supplementation improves teacher-rated behavior and oppositional symptoms in children with ADHD; Acta paediatr; 99 1540-1549;
R19. Johnson. Ostlund. Fransson; (2009); Omega 3/omega 6 fatty acids for attention deficit hyperactivity disorder: a randomized placebo-controlled trial in children and adolescents; J atten disord; 12 349-401;

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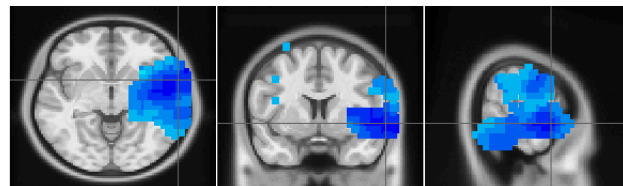
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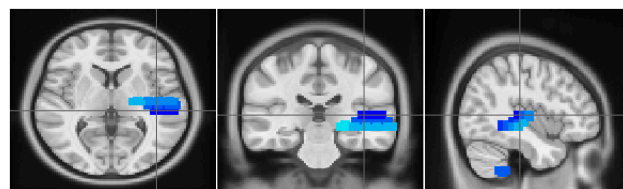
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Region: Frontal Lobe
Brodmann Area (BA): Left 6, 8
Secondary BA: Left 9, 46
Frequency: 18 - 20 Hz (Beta2)
Z-Score: -4.1 SD
Brodmann: Premotor cortex or Lateral Premotor Area (PMA); Supplementary Motor Area (SMA), Frontal Eye Fields
Function: Working memory; Impulsivity/Response inhibition



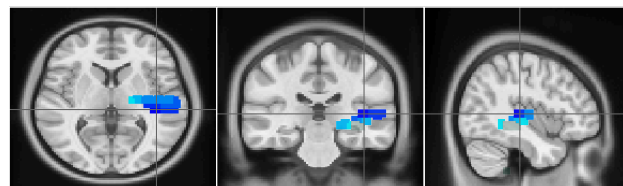
Description: The diversity of functions involving BA6, probably the largest Brodmann's area, is not surprising. However, its basic function seems to be clear enough: motor sequencing and planning movements. Damage in the lateral premotor area results in kinetic apraxia (loss of the kinetic components of engrams resulting in coarse or unrefined movements with movements that no longer have the appearance of being practiced over time). The SMA portion is related with movement initiation. The left SMA also participates in language initiation and maintenance of voluntary speech production; but, interestingly, it also activates with imagined movements. Linguistic functions of left BA6 are diverse, but a major function evidently is speech motor programming; Broca's area indeed corresponds to a subdivision of the premotor cortex, and some of the linguistic functions of the lateral premotor area are probable the result of an extended activation of the frontal languages areas. By the same token, participation of BA6 in memory, attention, and executive functions may be due to the activation of an extended brain network, that sometimes involves BA6. The existence of mirrors neurons that activate when observing (and imagining) actions plays an important role in understanding thinking and planning.

Region: Frontal Lobe
Brodmann Area (BA): Left 6, 8
Secondary BA: Left 9, 46
Frequency: 16 - 18 Hz (Beta2)
Z-Score: -3.8 SD
Brodmann: Premotor cortex or Lateral Premotor Area (PMA); Supplementary Motor Area (SMA), Frontal Eye Fields
Function: Working memory; Impulsivity/Response inhibition



Description: The diversity of functions involving BA6, probably the largest Brodmann's area, is not surprising. However, its basic function seems to be clear enough: motor sequencing and planning movements. Damage in the lateral premotor area results in kinetic apraxia (loss of the kinetic components of engrams resulting in coarse or unrefined movements with movements that no longer have the appearance of being practiced over time). The SMA portion is related with movement initiation. The left SMA also participates in language initiation and maintenance of voluntary speech production; but, interestingly, it also activates with imagined movements. Linguistic functions of left BA6 are diverse, but a major function evidently is speech motor programming; Broca's area indeed corresponds to a subdivision of the premotor cortex, and some of the linguistic functions of the lateral premotor area are probable the result of an extended activation of the frontal languages areas. By the same token, participation of BA6 in memory, attention, and executive functions may be due to the activation of an extended brain network, that sometimes involves BA6. The existence of mirrors neurons that activate when observing (and imagining) actions plays an important role in understanding thinking and planning.

Region: Temporal Lobe
Brodmann Area (BA): Left 38, 44, 45
Secondary BA: Left 47, 46
Frequency: 20 - 22 Hz (Beta3)
Z-Score: -3.5 SD
Brodmann: Temporal pole, Inferior frontal gyrus - Pars opercularis, Inferior frontal gyrus - Pars triangularis
Function: Language production & comprehension; Working memory, selective attention



Description: Functional studies have disclosed the unexpected complexity of BA38 functions. Because of its location in the brain, it is understandable that BA38 participates in language processes, emotion, executive functions, and memory. Left BA38 is involved in diverse 'high level' verbal functions (e.g., semantic processing, naming of items learned in early life, lexico-semantic ambiguity processing, etc.). Departing from the reported functional studies BA38 involvement in emotion seems evident (e.g., visual processing of emotional images, emotional attachment, response to threat/fearful stimulus, etc.). In some executive functions (e.g., moral judgment, inferential reasoning, etc) BA38 is also active. Diverse studies support BA38 contribution to multimodal memory retrieval. Additionally, it seems to contribute to some complex auditory processing; for instance, recognition of familiar voices (phonognosis), and response to aversive auditory stimulation. Interestingly, traumatic head injury usually impacts the temporal pole, and it has been suggested that the difficulties to separate auditory 'figure' (e.g., language) from background 'noise' found in patients with head injury, is a result of BA38 damage.

Physician's Notes:

All results and analysis should be considered in the context of persons/candidate's case history, symptoms, diagnosis, current medications, treatment plans and therapies. Final diagnosis is the sole responsibility of the licensed medical practitioner after persons examination, lab tests and/or other clinical findings as necessary.

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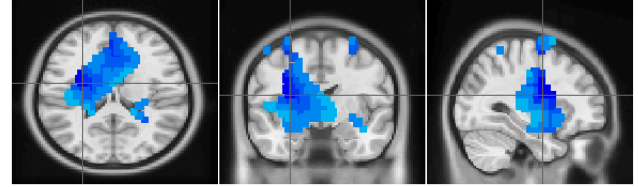
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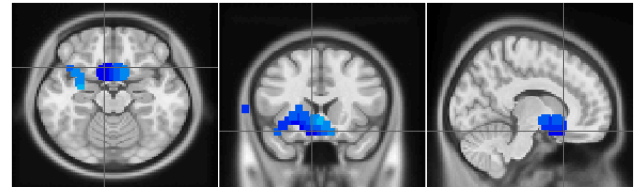
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Region: Frontal Lobe
Brodmann Area (BA): 6, 8
Secondary BA: 9, 10, 32, 33
Frequency: 16 - 18 Hz (Beta2)
Z-Score: -3.2 SD
Brodmann: Premotor cortex or Lateral Premotor Area (PMA); Supplementary Motor Area (SMA), Frontal Eye Fields
Function: Focus; Attention; Motivation



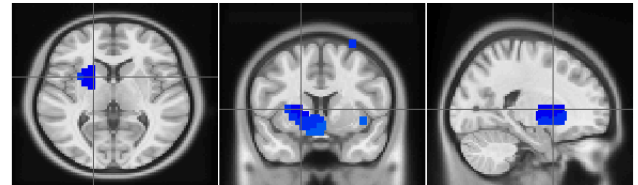
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Region: Parietal Lobe
Brodmann Area (BA): 1, 2, 3, 4, 5
Secondary BA: 6, 24
Frequency: 14 - 16 Hz (Beta1)
Z-Score: -2.4 SD
Brodmann: Primary somatosensory cortex - Postcentral gyrus, Primary motor cortex - Precentral gyrus, Somatosensory Association Cortex
Function: Short-term memory; Anxiety; Sleep quality



Description: The primary somatosensory area (SI) traditionally has been related with somatosensory perception (localization of touch, two-point discrimination, proprioception, etc). Functional studies have demonstrated that SI also participates in movement organization (e.g., voluntary hand and tongue movements), 'anticipation', and 'mirror neurons' (i.e., neurons that are active when observing the action of others). Mirror neurons were initially observed in macaques in the premotor and parietal cortical areas, and only recently, reported in humans. Mirror neurons probably play a crucial role in action understanding, anticipation, imitation, imagery, social behavior, and the like; that is, in the internal representations of actions. SI activation during movement performance reflects its participation in an extensive movement network that usually includes not only the primary motor cortex, but also the premotor cortex, the basal ganglia and the cerebellum.

Region: Parietal Lobe
Brodmann Area (BA): Right 1, 2, 3, 4
Frequency: 18 - 20 Hz (Beta2)
Z-Score: -2.3 SD
Brodmann: Primary somatosensory cortex - Postcentral gyrus, Primary motor cortex - Precentral gyrus
Function: Non-verbal memory; Coordination



Description: The primary somatosensory area (SI) traditionally has been related with somatosensory perception (localization of touch, two-point discrimination, proprioception, etc). Functional studies have demonstrated that SI also participates in movement organization (e.g., voluntary hand and tongue movements), 'anticipation', and 'mirror neurons' (i.e., neurons that are active when observing the action of others). Mirror neurons were initially observed in macaques in the premotor and parietal cortical areas, and only recently, reported in humans. Mirror neurons probably play a crucial role in action understanding, anticipation, imitation, imagery, social behavior, and the like; that is, in the internal representations of actions. SI activation during movement performance reflects its participation in an extensive movement network that usually includes not only the primary motor cortex, but also the premotor cortex, the basal ganglia and the cerebellum.

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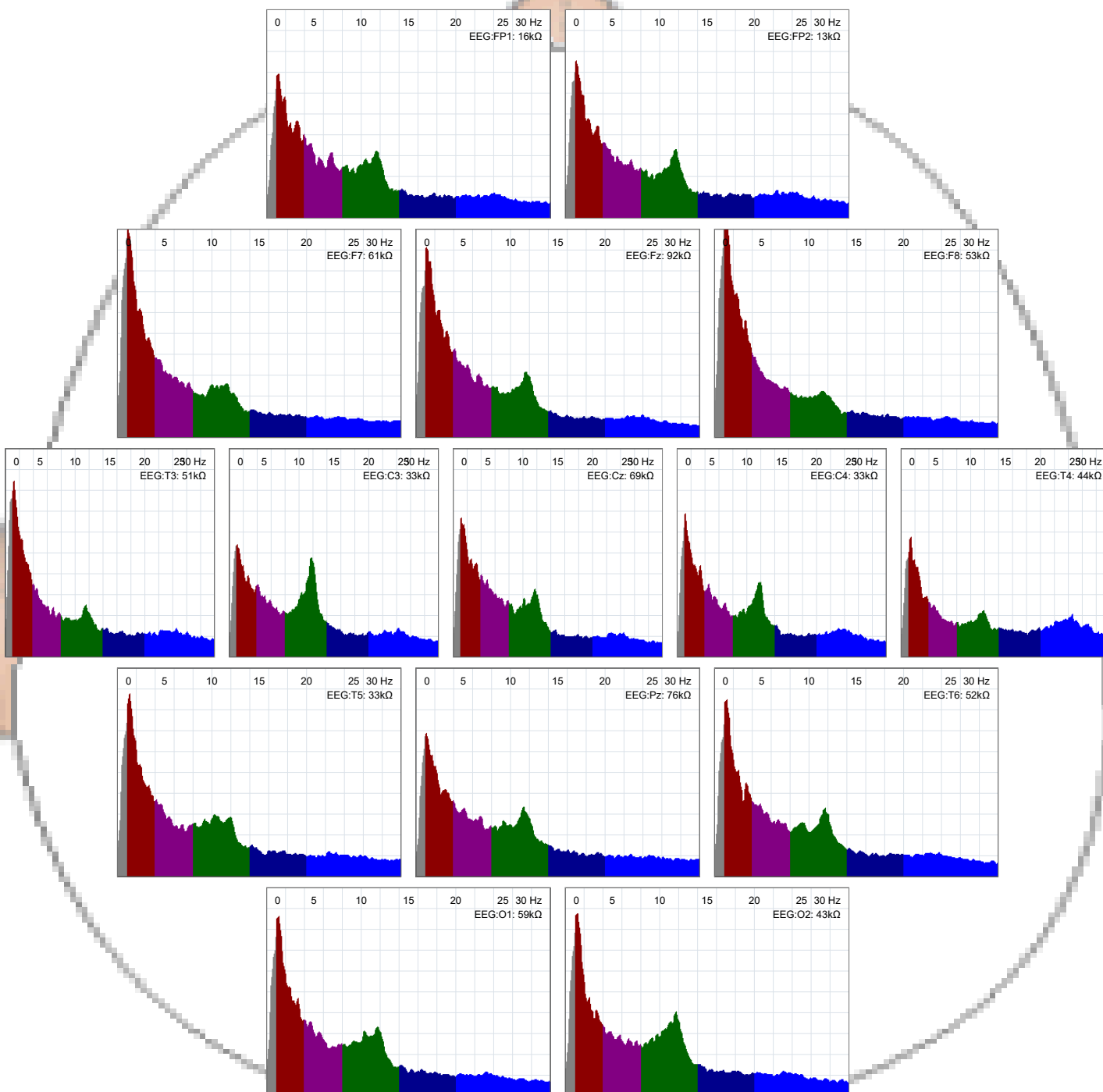
Gender: Male
Age: 16 (DOB: Jul 7 2007)

Weight: 116 lbs
Patient Code: 945349

Height: 5 ft 5 in
BMI: 19.3

Physician Only Report

Exam Date: Sep 28 2023 16:31
Le Mente Behavioral Health



Physician's Notes:

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Printed: Oct 5 2023 08:06

Sample Patient 2

Gender: Male
Age: 16 (DOB: Jul 7 2007)

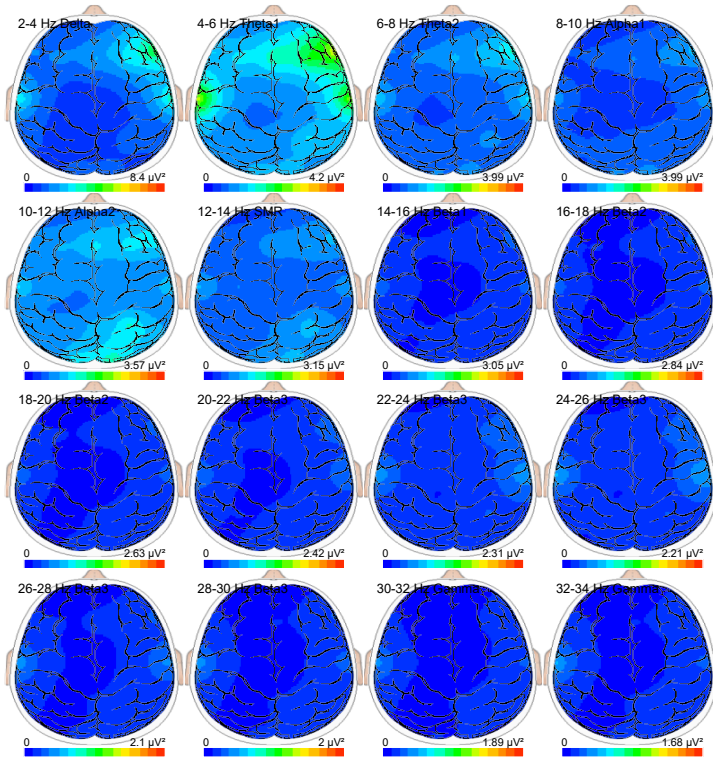
Weight: 116 lbs
Patient Code: 945349

Height: 5 ft 5 in
BMI: 19.3

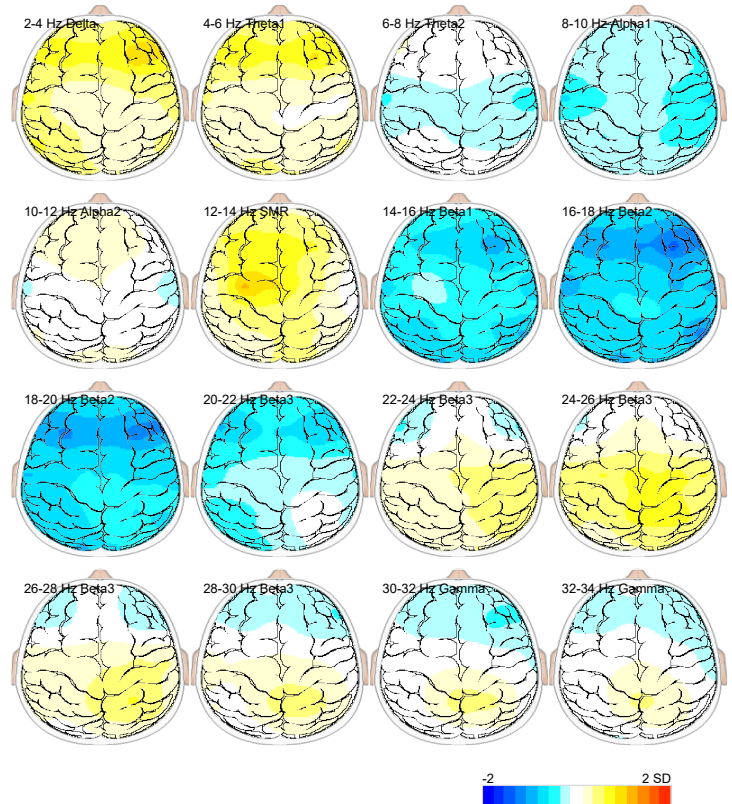
Physician Only Report

Exam Date: Sep 28 2023 16:31
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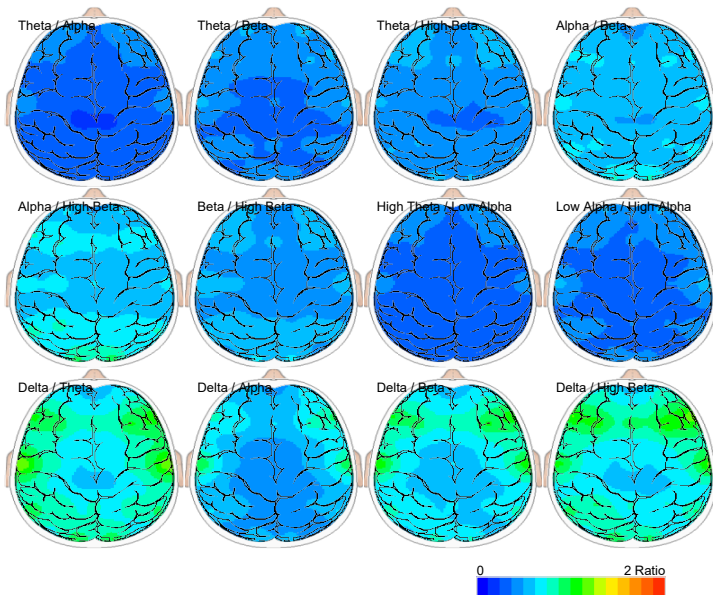
Absolute Power



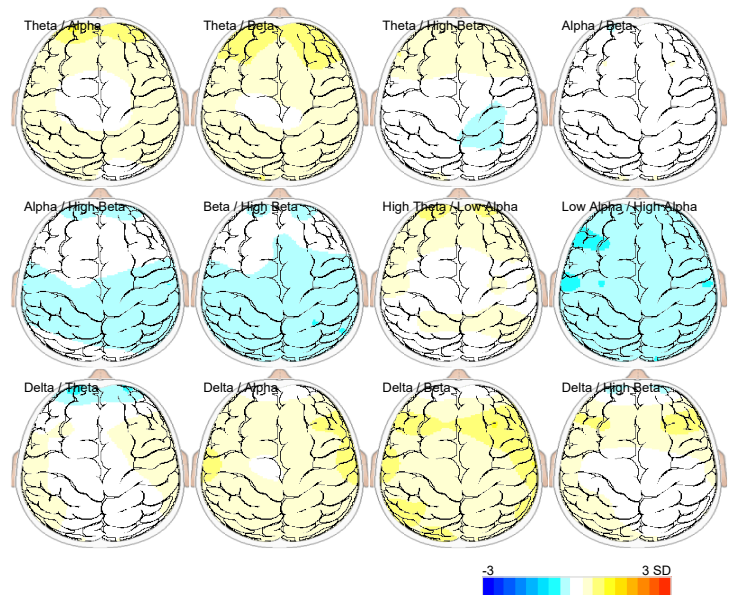
Z Scored - Relative Power



Power Ratio



Z Scored - Power Ratio

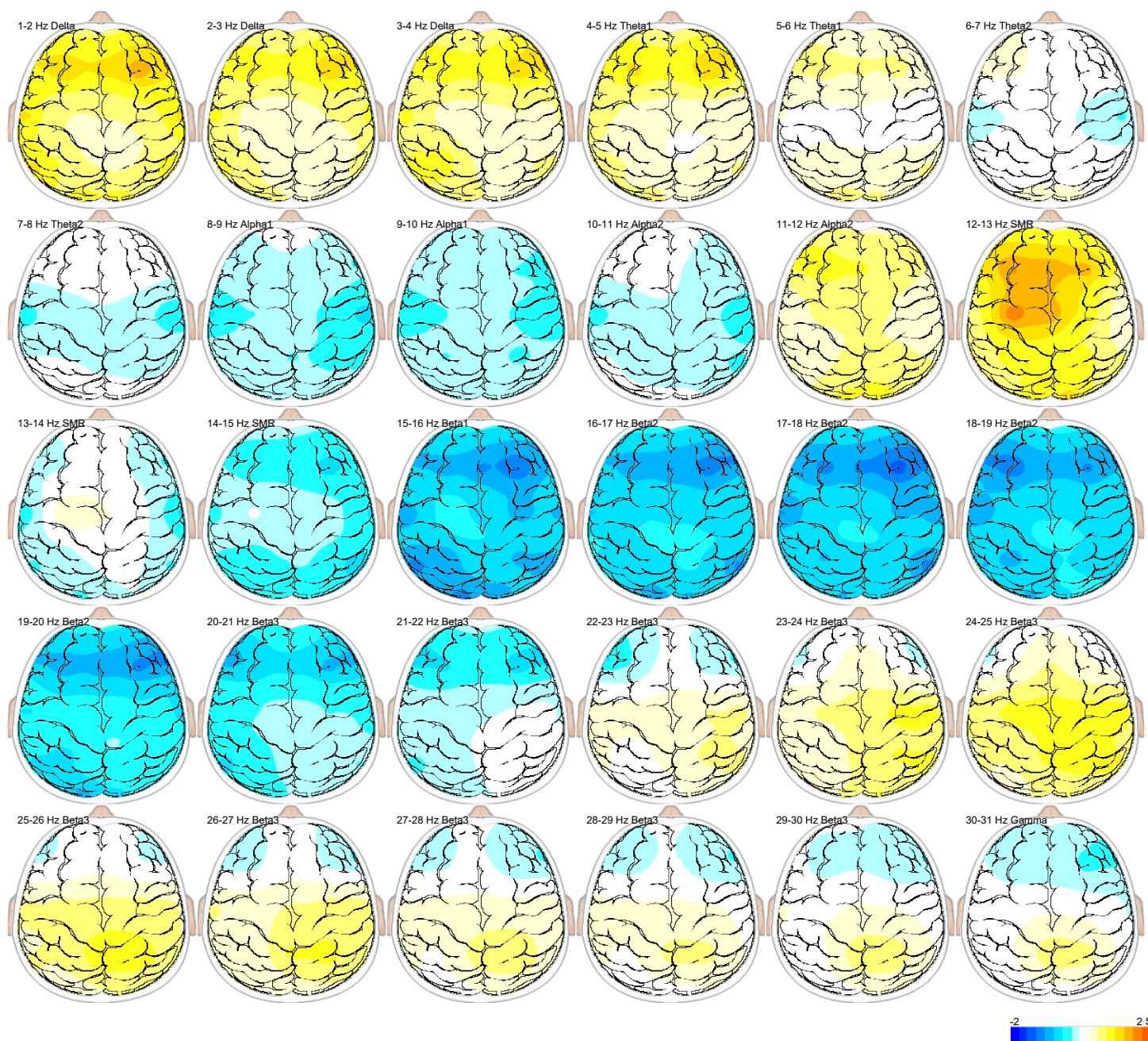


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Exam Date: Sep 28 2023 16:31



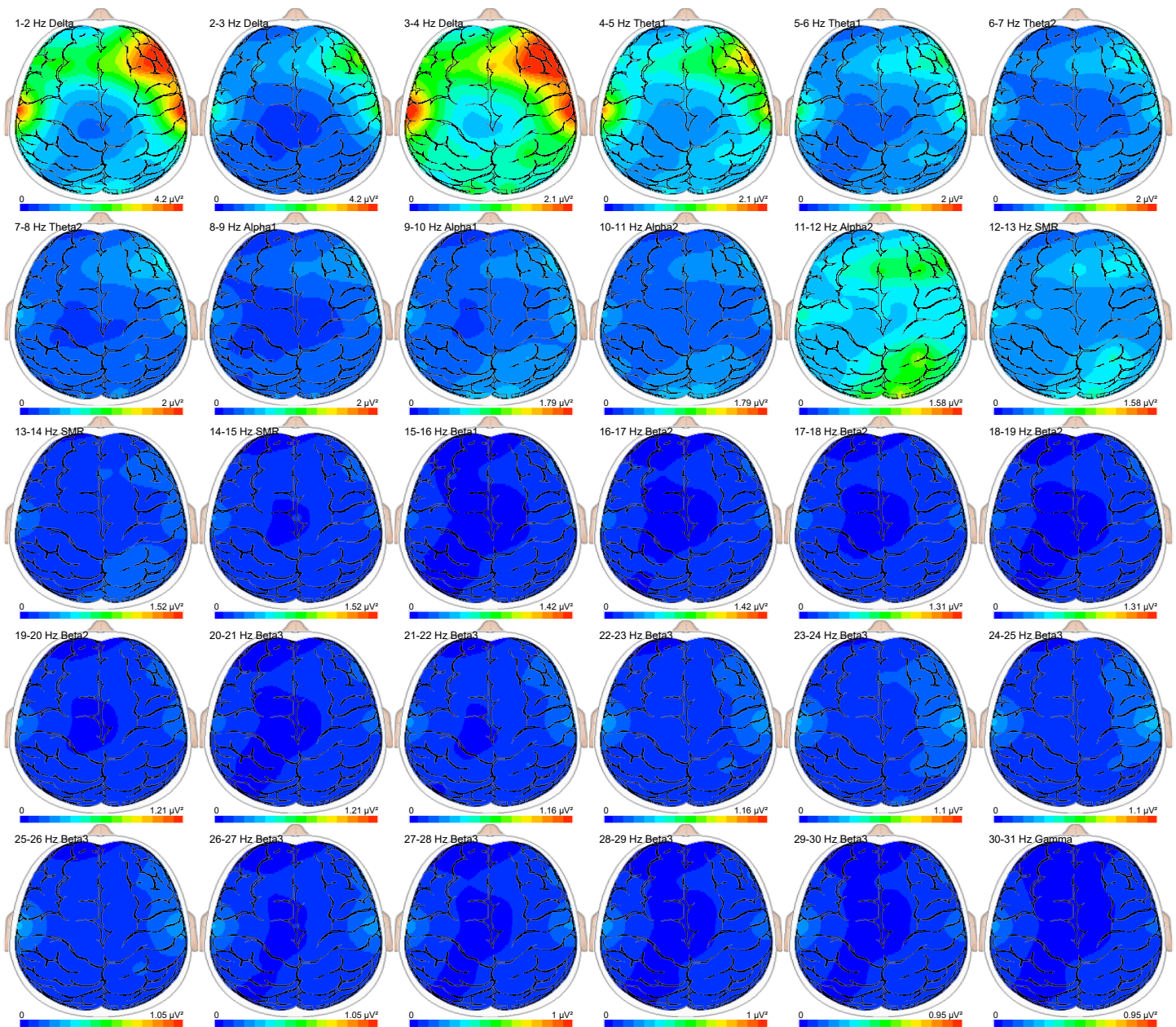
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Exam Date: Sep 28 2023 16:31

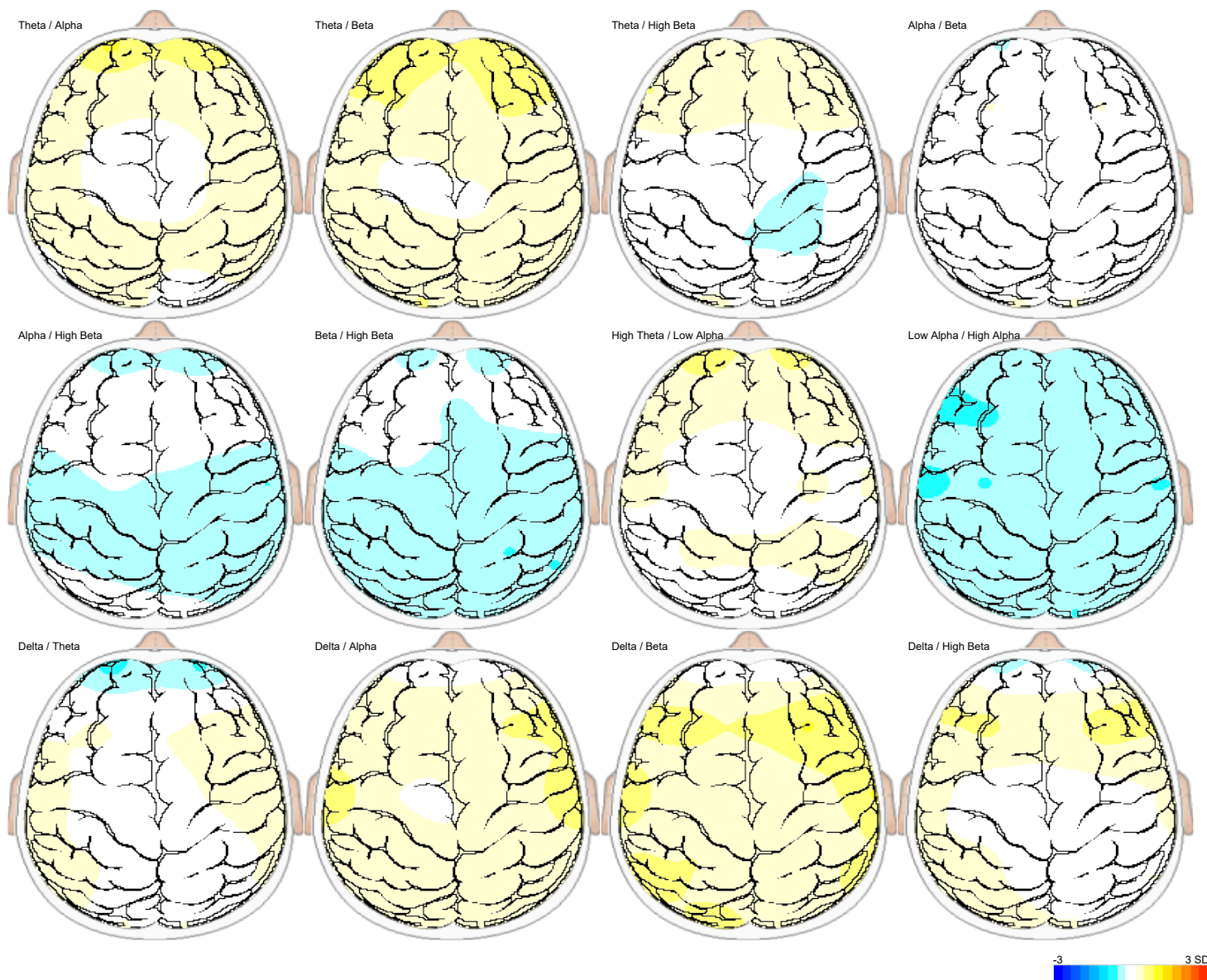


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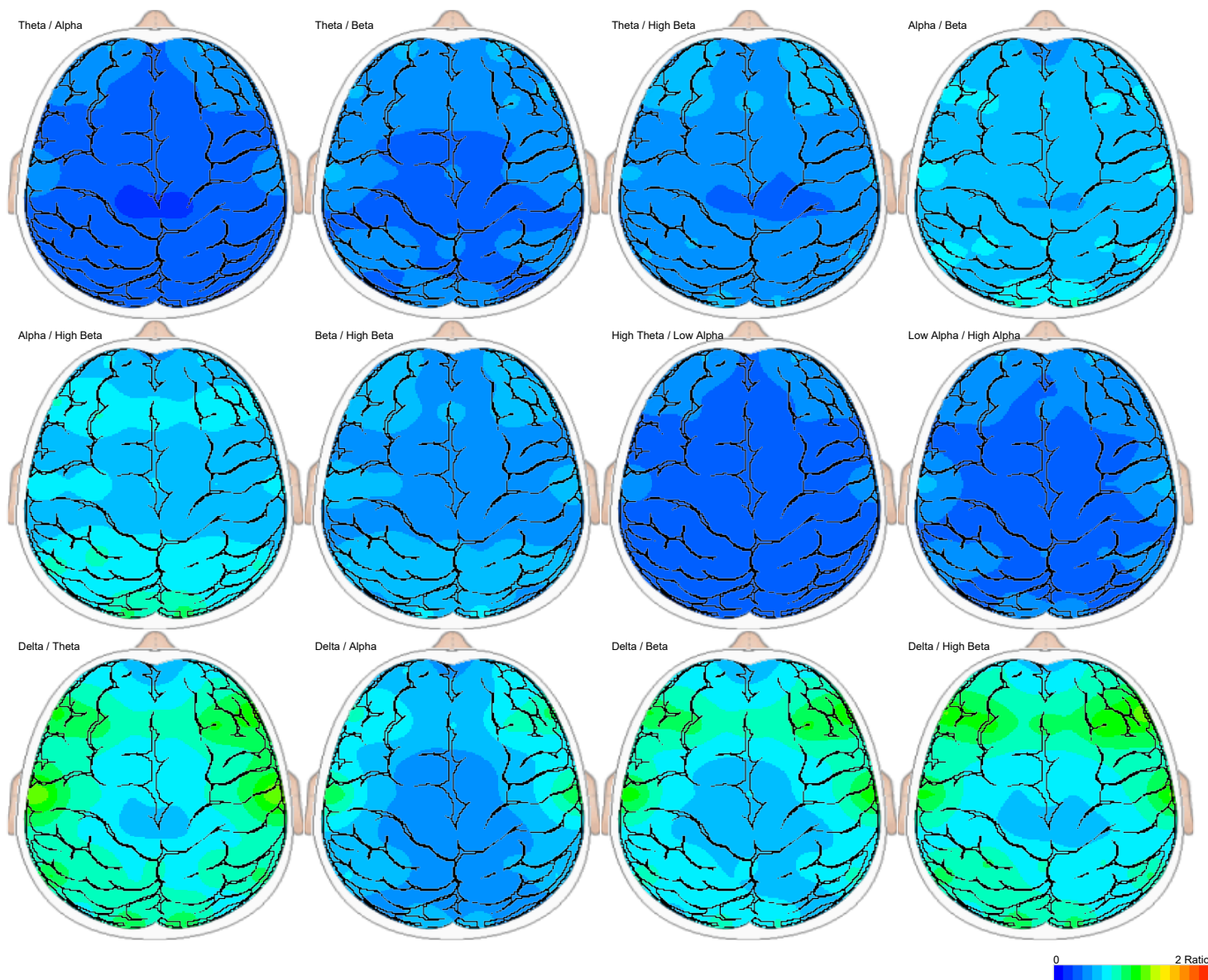
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Sample Patient 2 Gender: Male Age: 16 (DOB: Jul 7 2007) Patient Code: 945349

Exam Date: Sep 28 2023 16:31



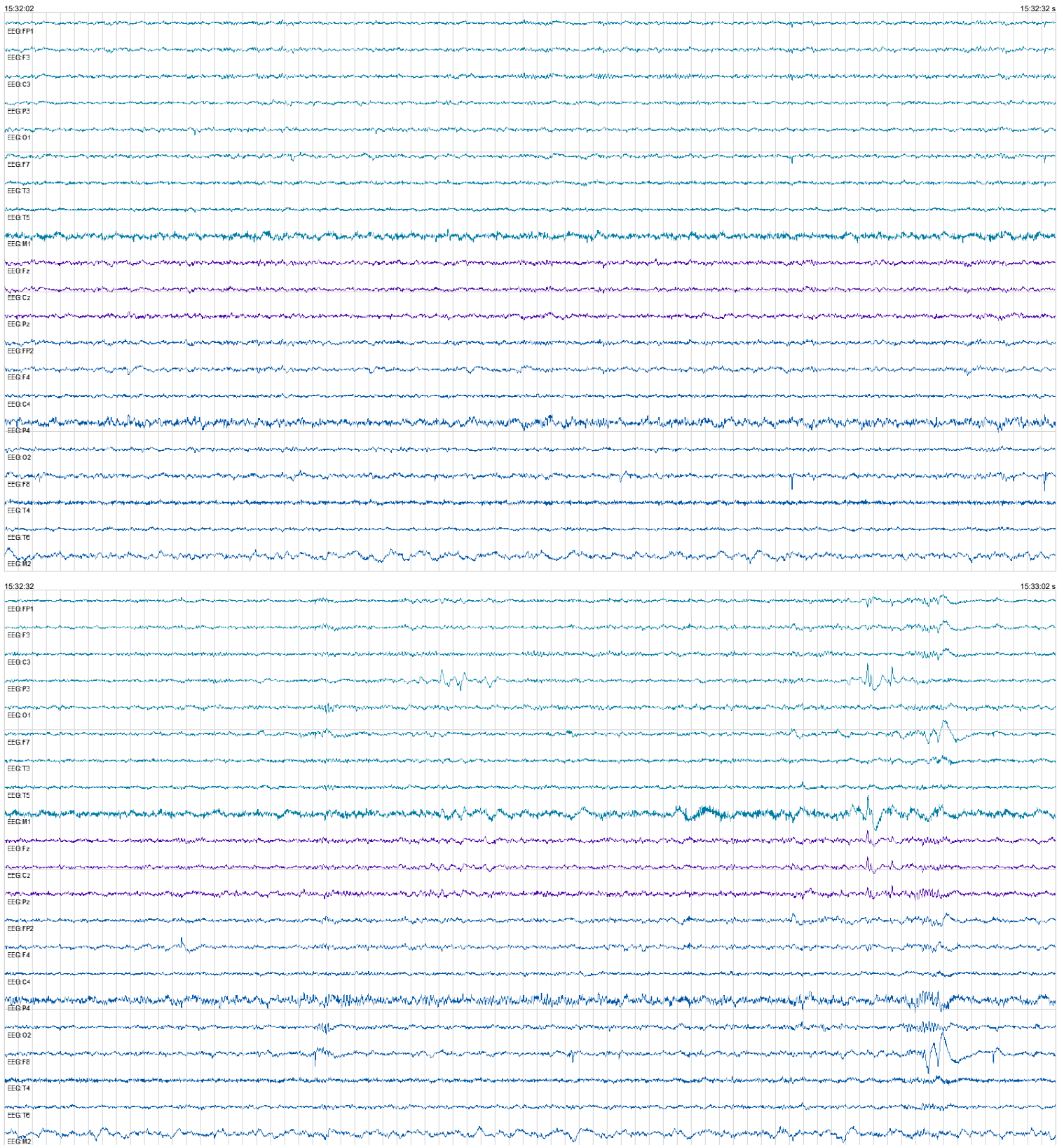
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Printed: Oct 5 2023 08:06

Sample Patient 2 Gender: Male Age: 16 (DOB: Jul 7 2007) Patient Code: 945349

Exam Date: Sep 28 2023 16:31

30 sec / page; 200ms / grid; 80 μ V / channel; HPF 1Hz; LPF 40Hz; Average Montage;

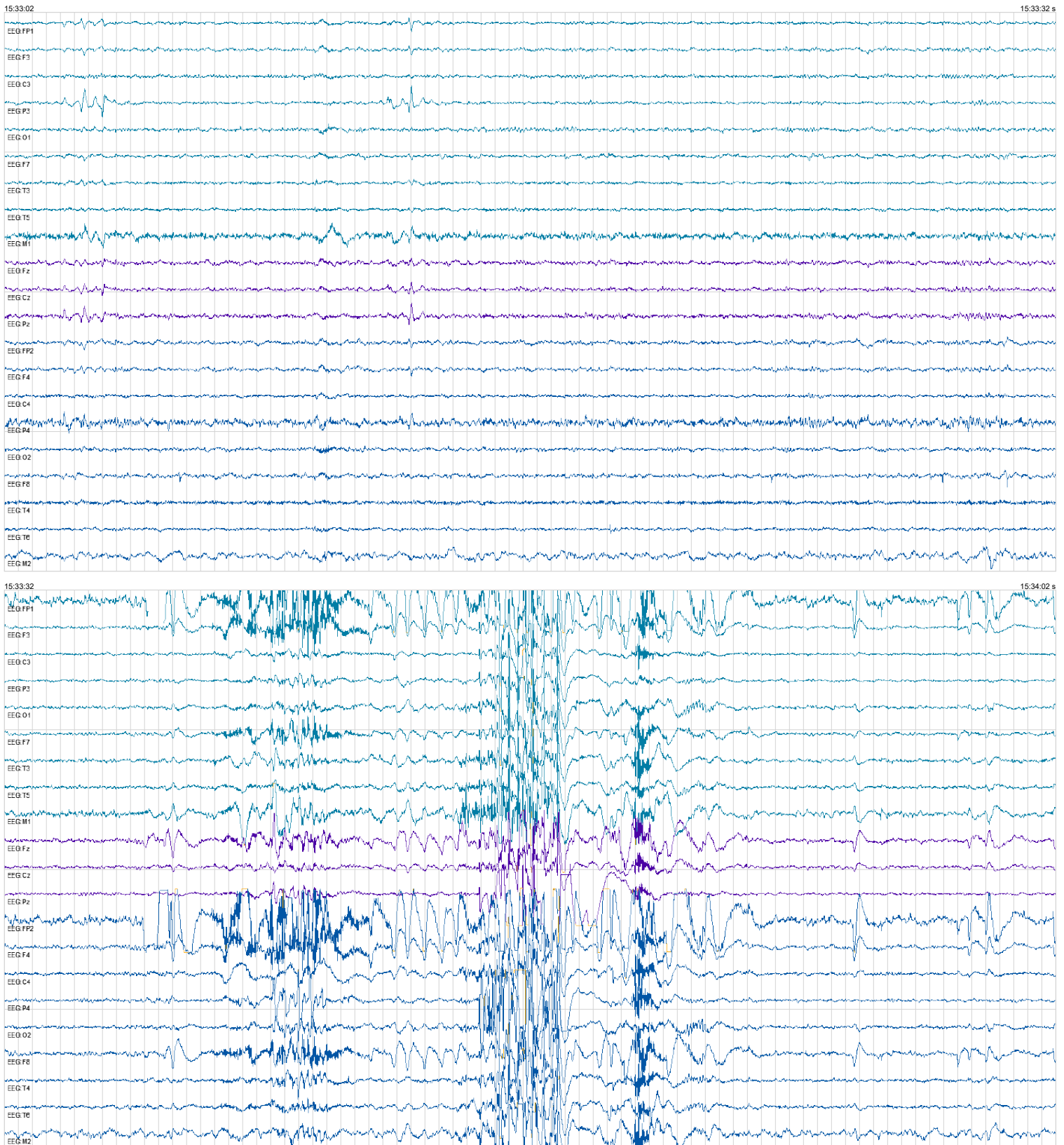
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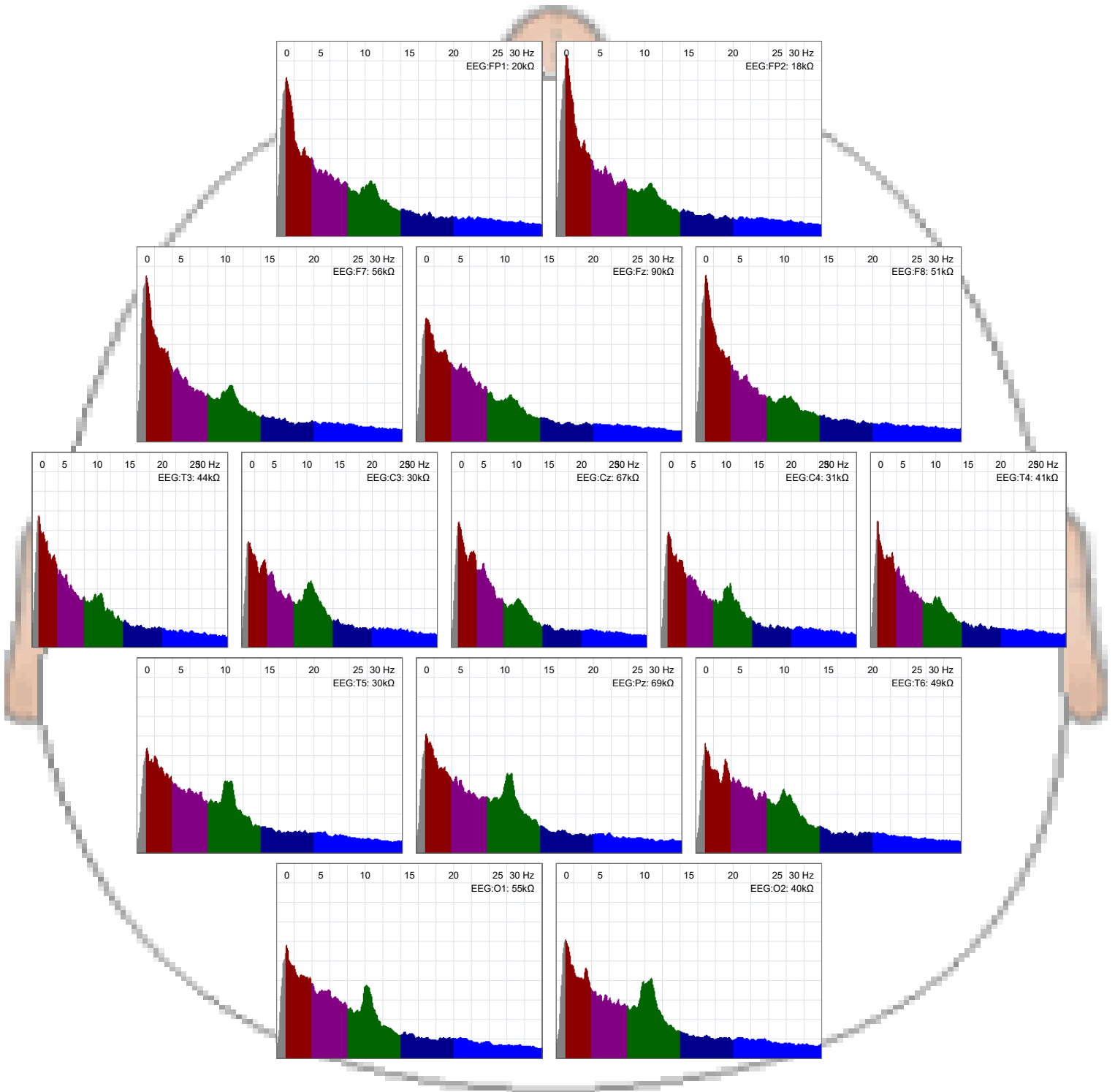
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Patient Code: 945349

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Physician Only Report

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Gender: Male

Age: 16 (DOB: Jul 7 2007)

Weight: 116 lbs

Patient Code: 945349

Height: 5 ft 5 in

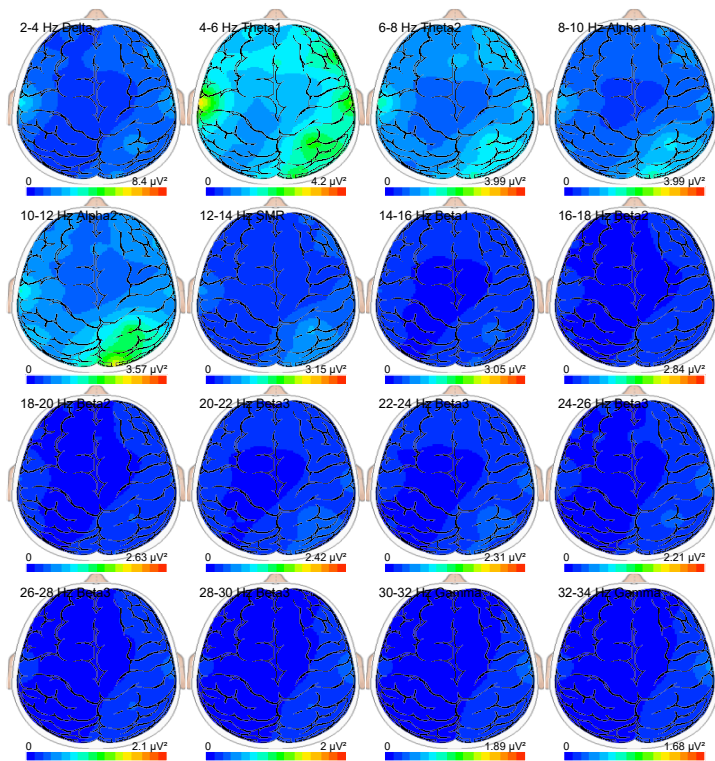
BMI: 19.3

Physician Only Report

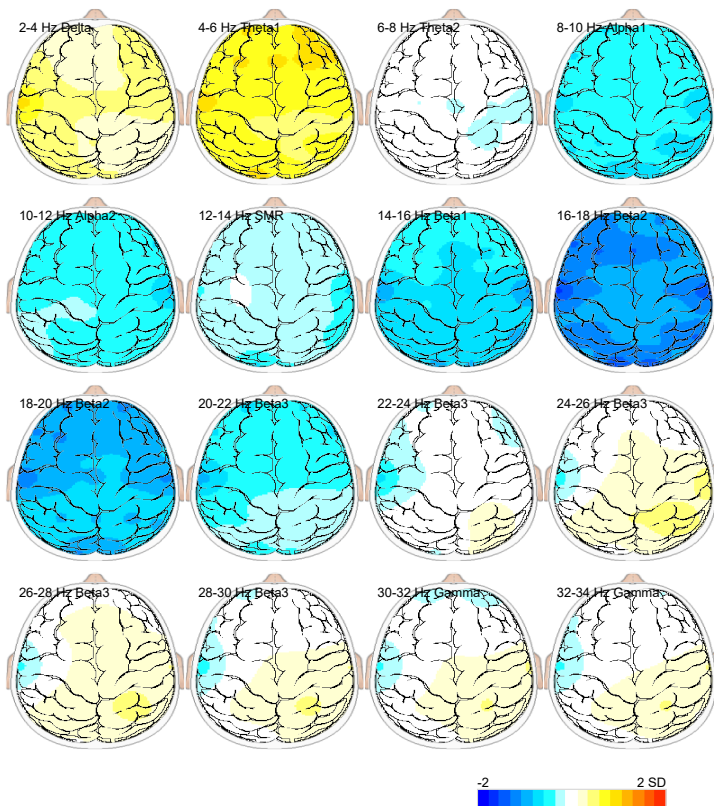
Exam Date: Sep 28 2023 16:31

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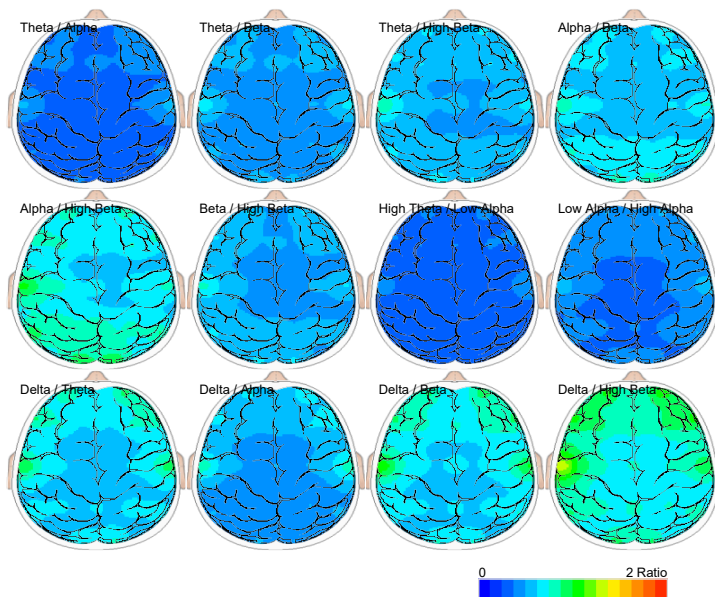
Absolute Power



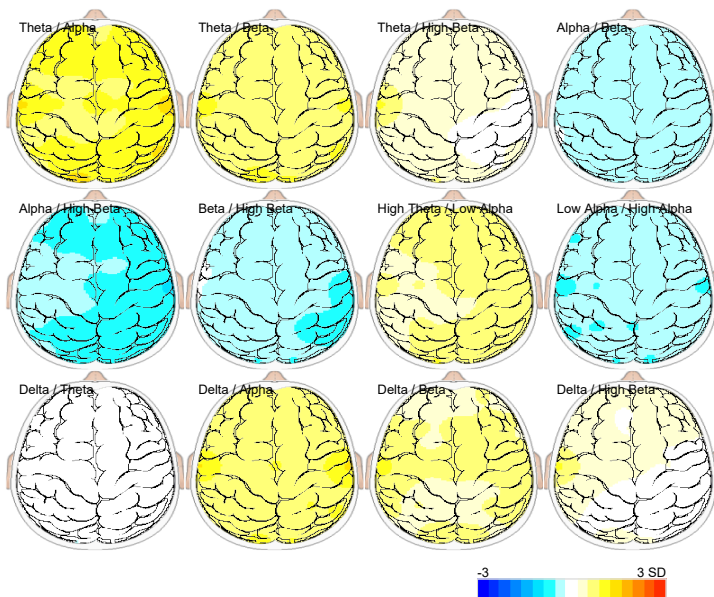
Z Scored - Relative Power



Power Ratio



Z Scored - Power Ratio



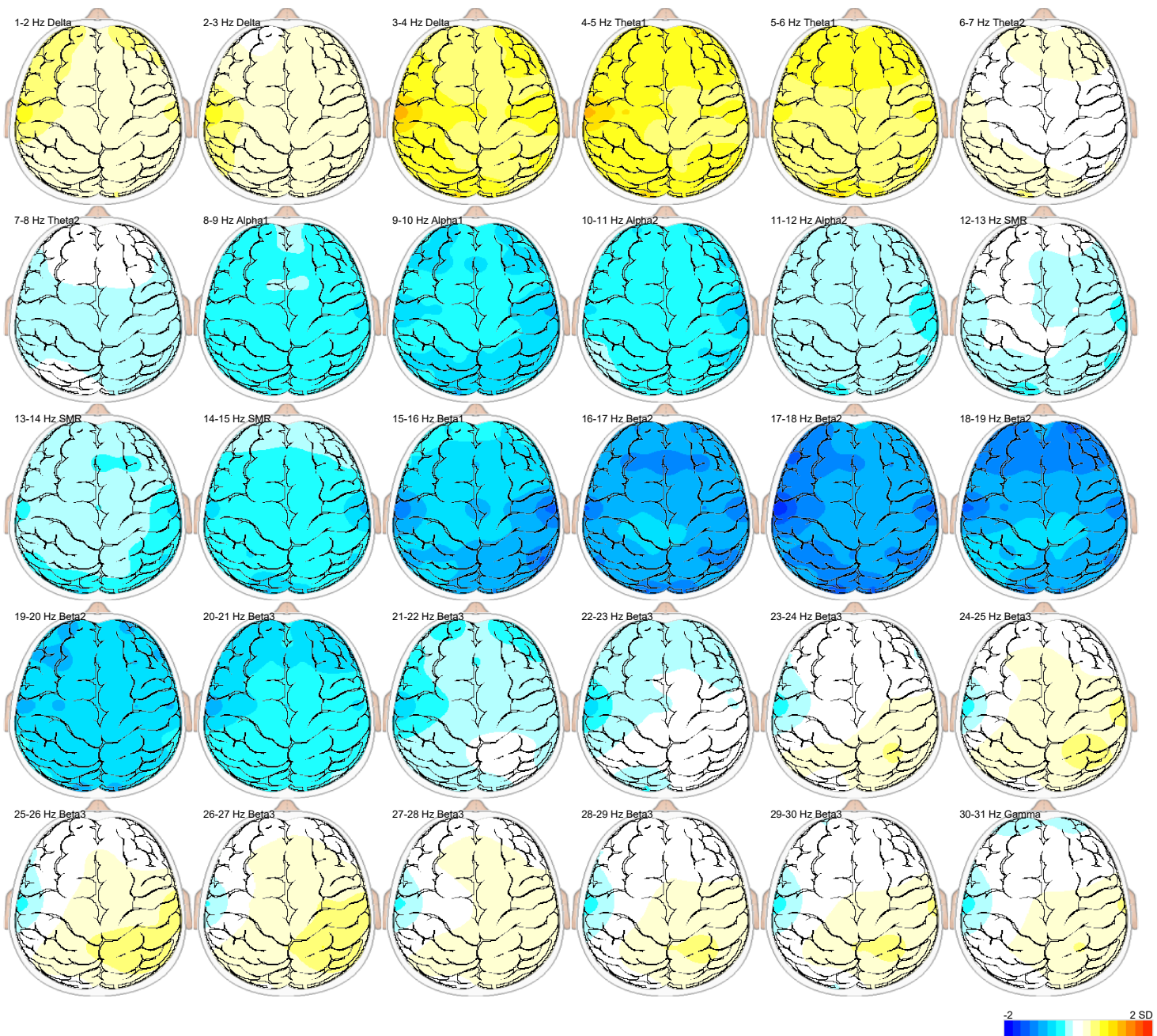
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Printed: Oct 5 2023 08:06

Sample Patient 2 Gender: Male Age: 16 (DOB: Jul 7 2007) Patient Code: 945349

Exam Date: Sep 28 2023 16:31



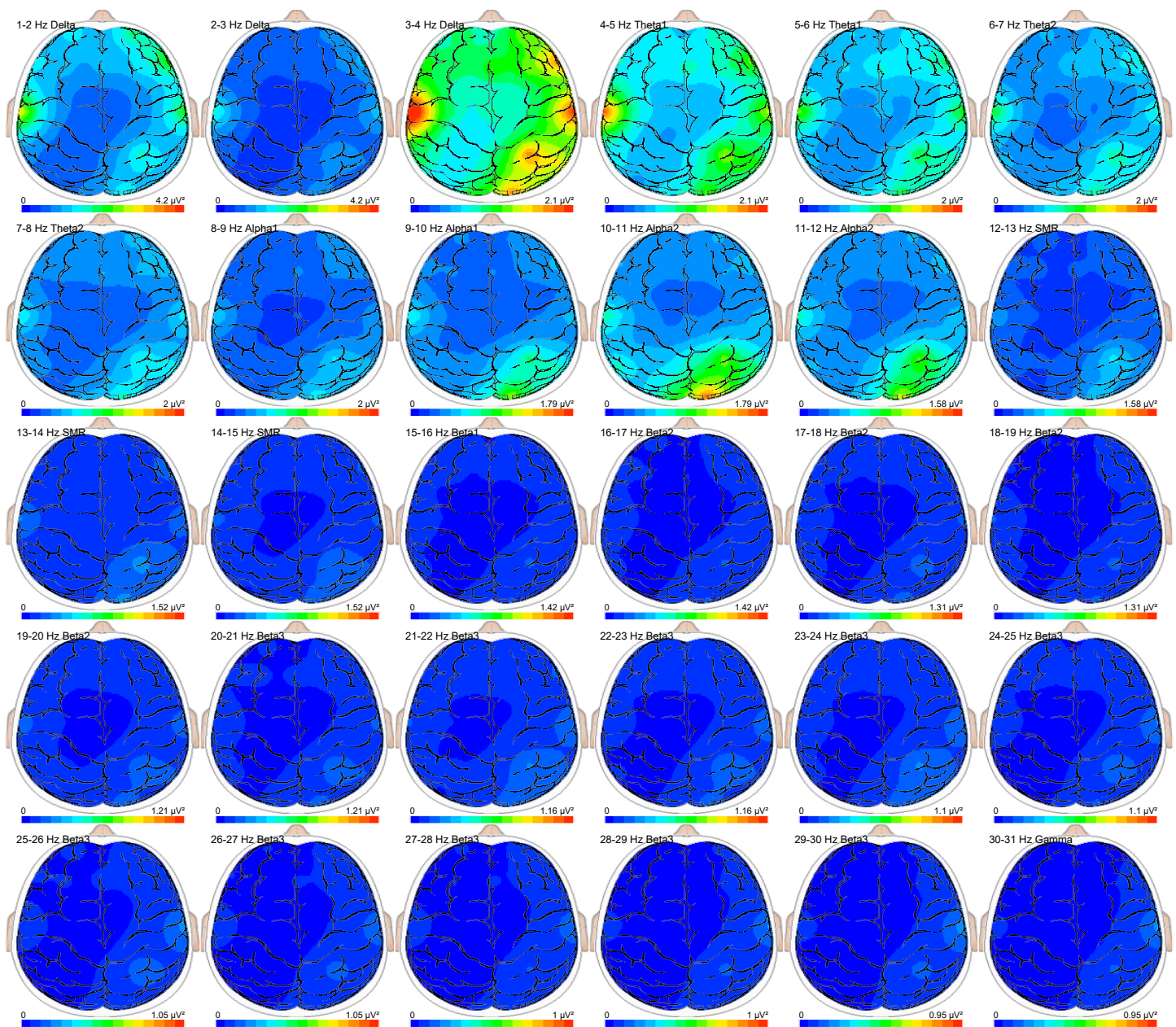
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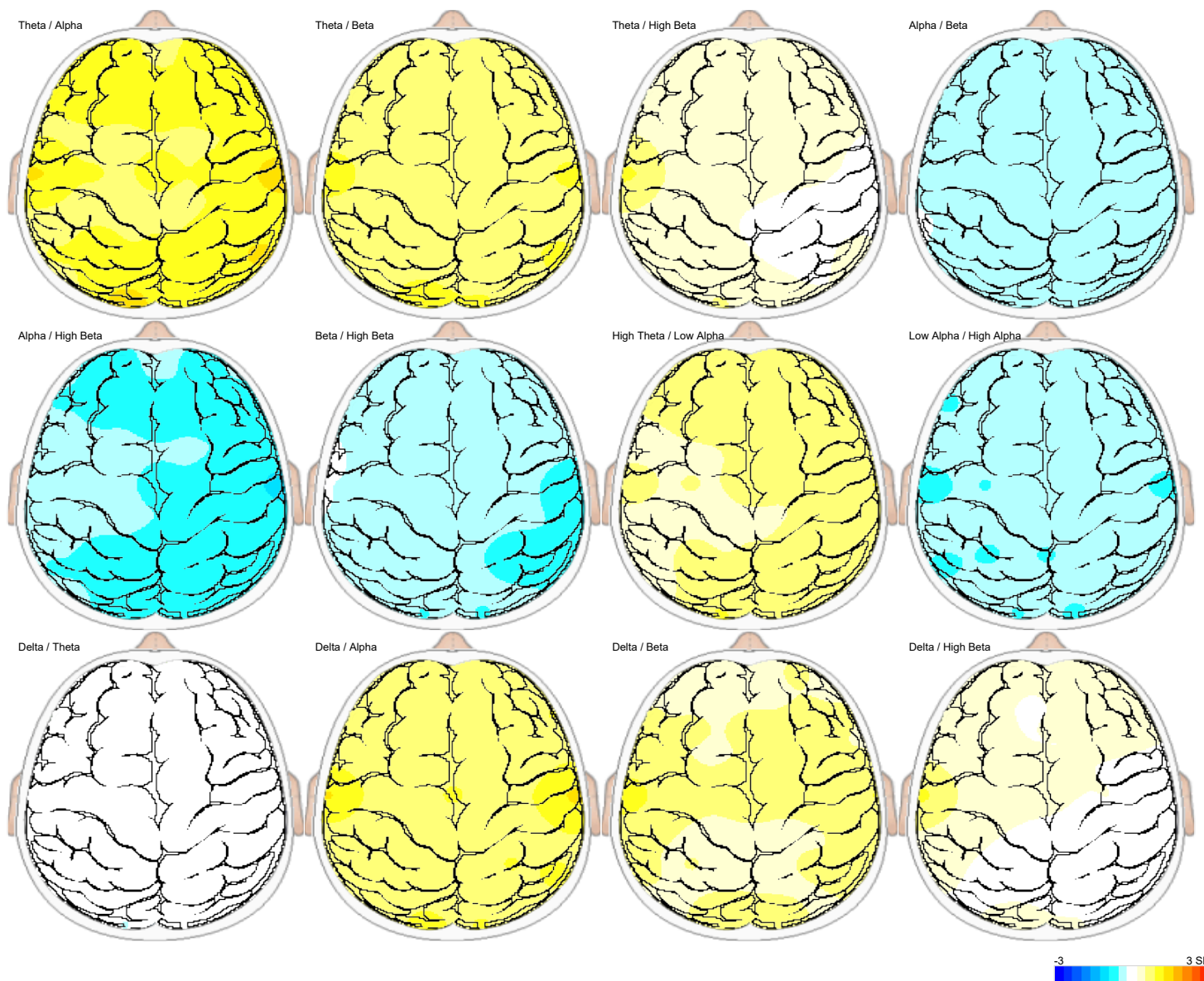
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Exam Date: Sep 28 2023 16:31



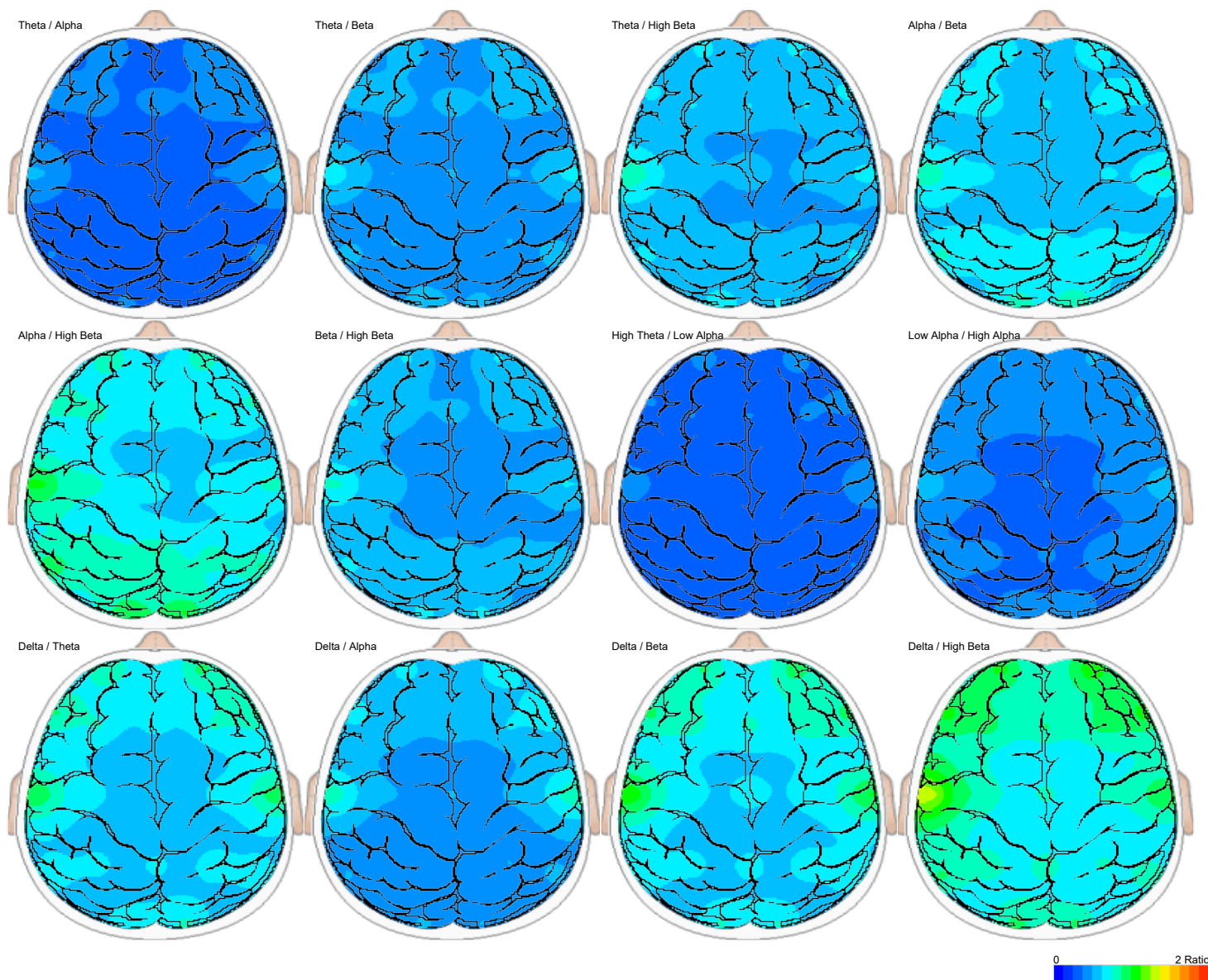
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Exam Date: Sep 28 2023 16:31



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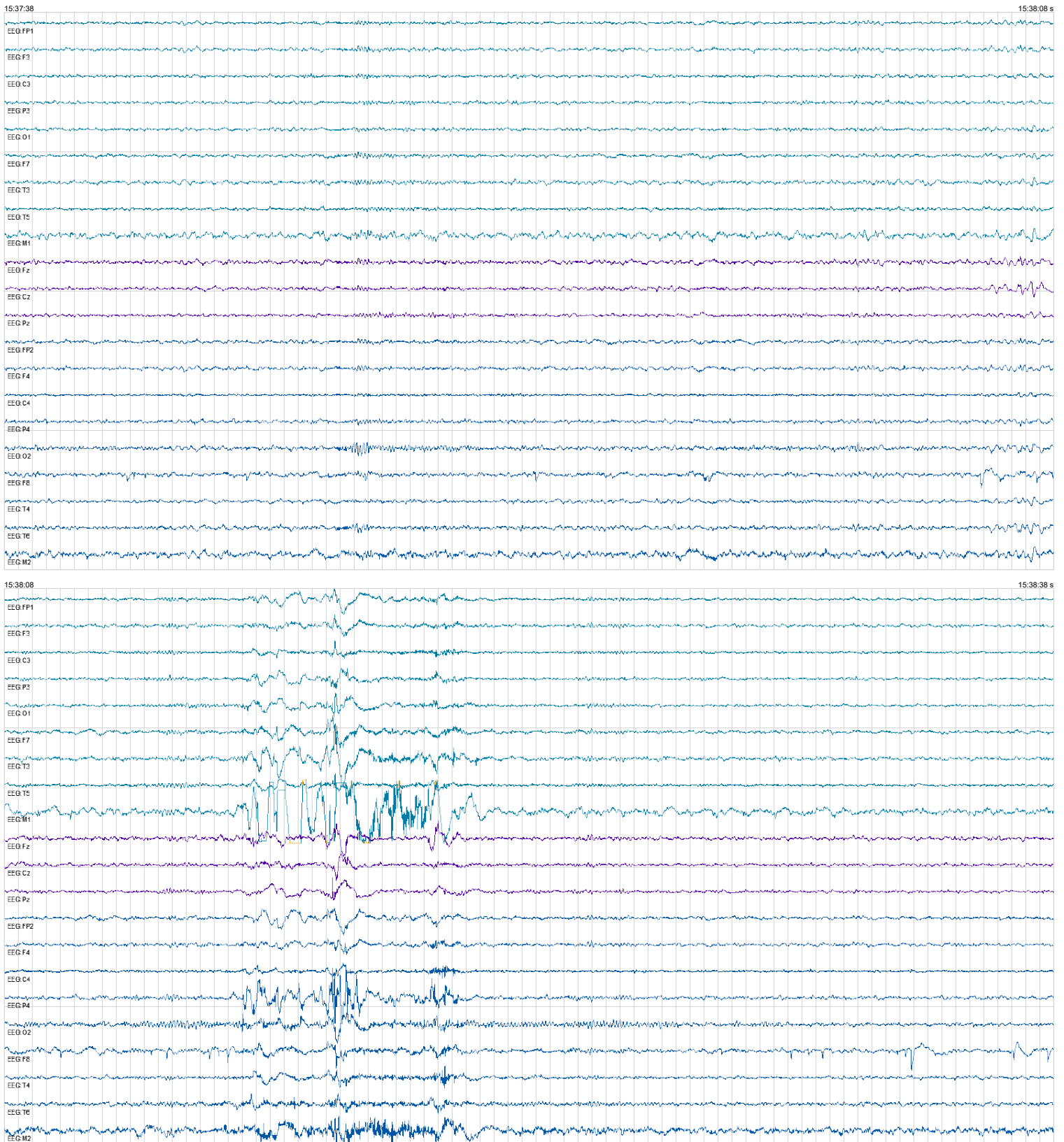
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Sample Patient 2 Gender: Male Age: 16 (DOB: Jul 7 2007) Patient Code: 945349

Exam Date: Sep 28 2023 16:31

30 sec / page; 200ms / grid; 80µV / channel; HPF 1Hz; LPF 40Hz; Average Montage;



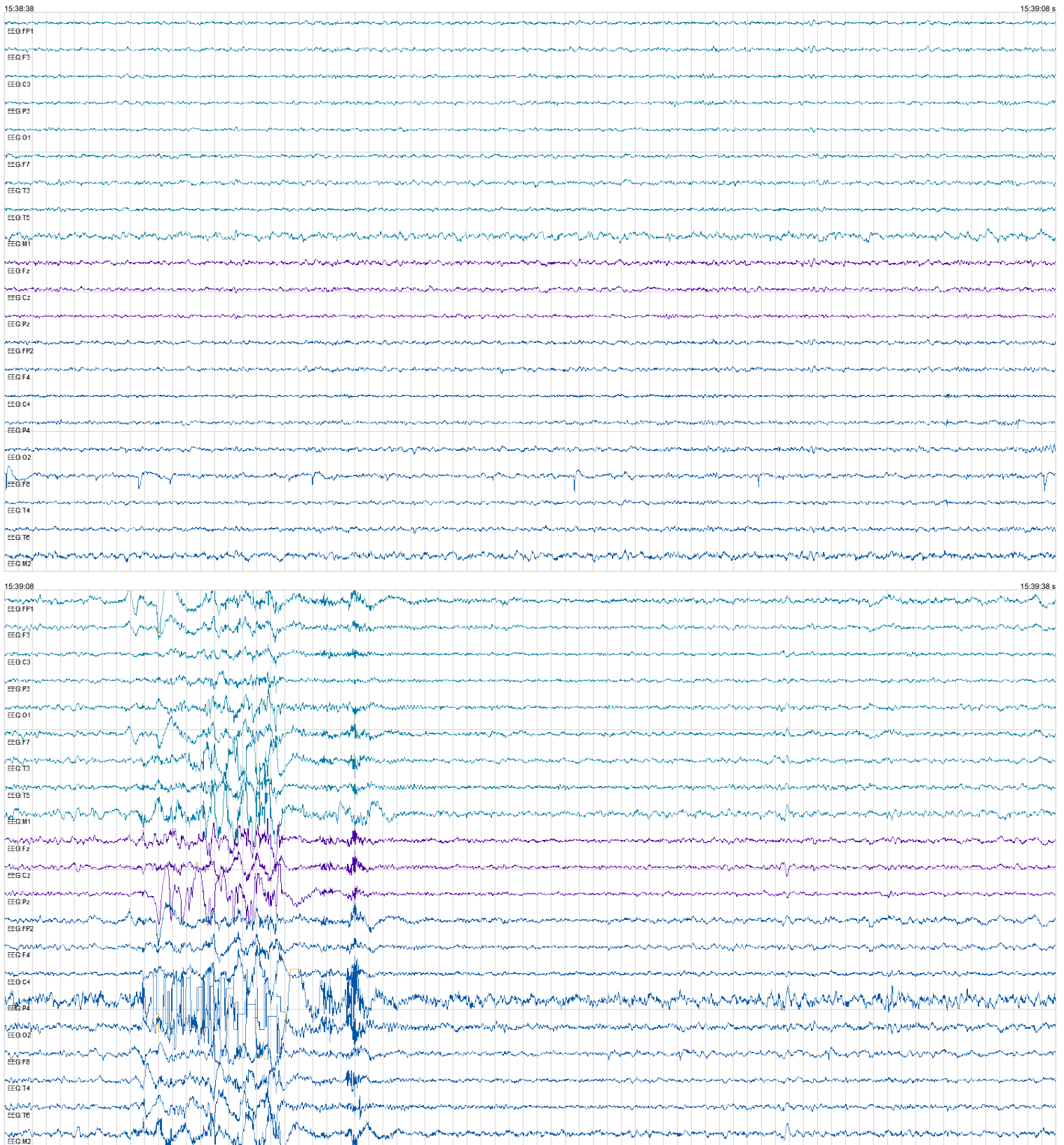
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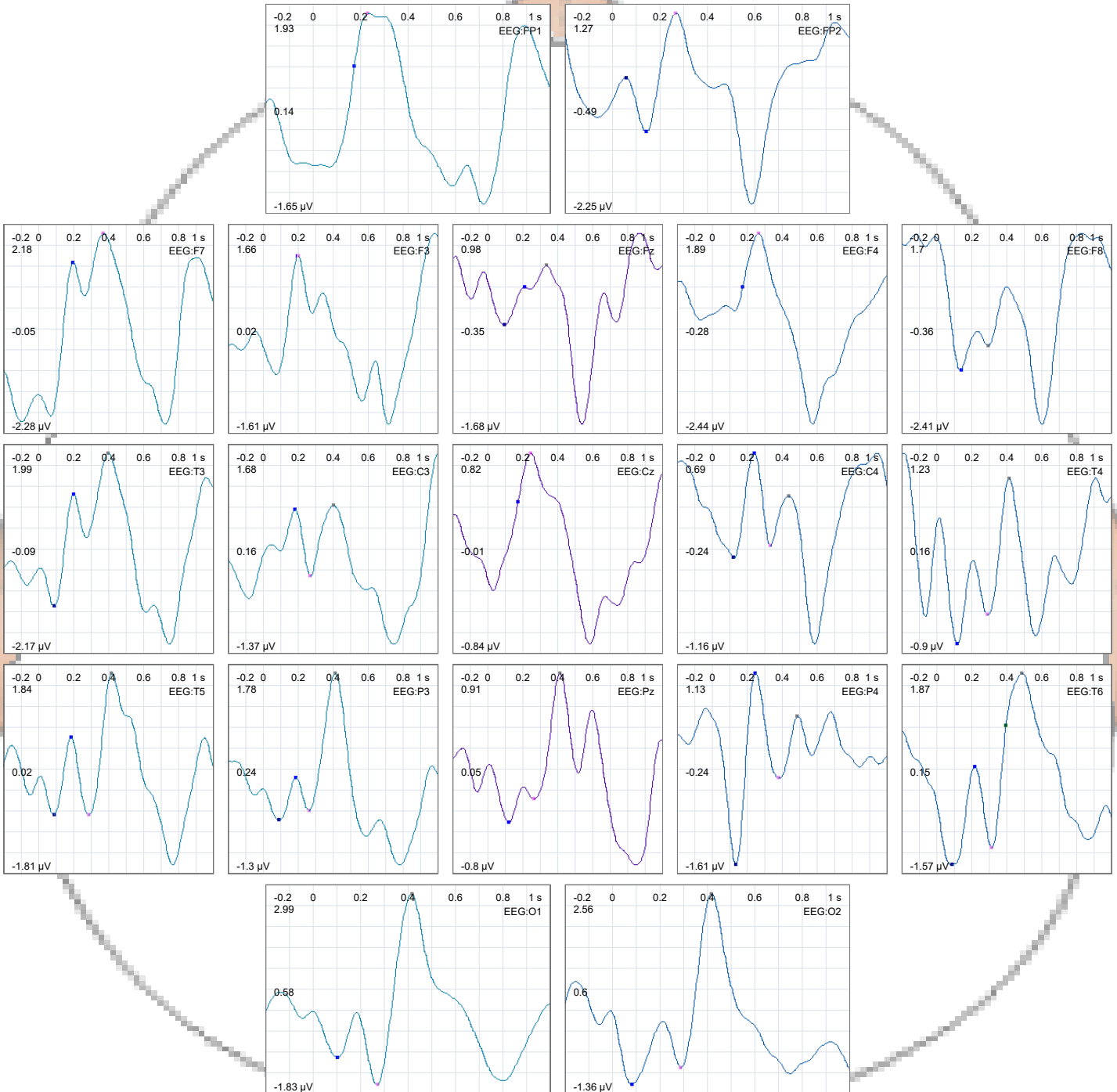
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Physician Only Report

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Le Mente Behavioral Health



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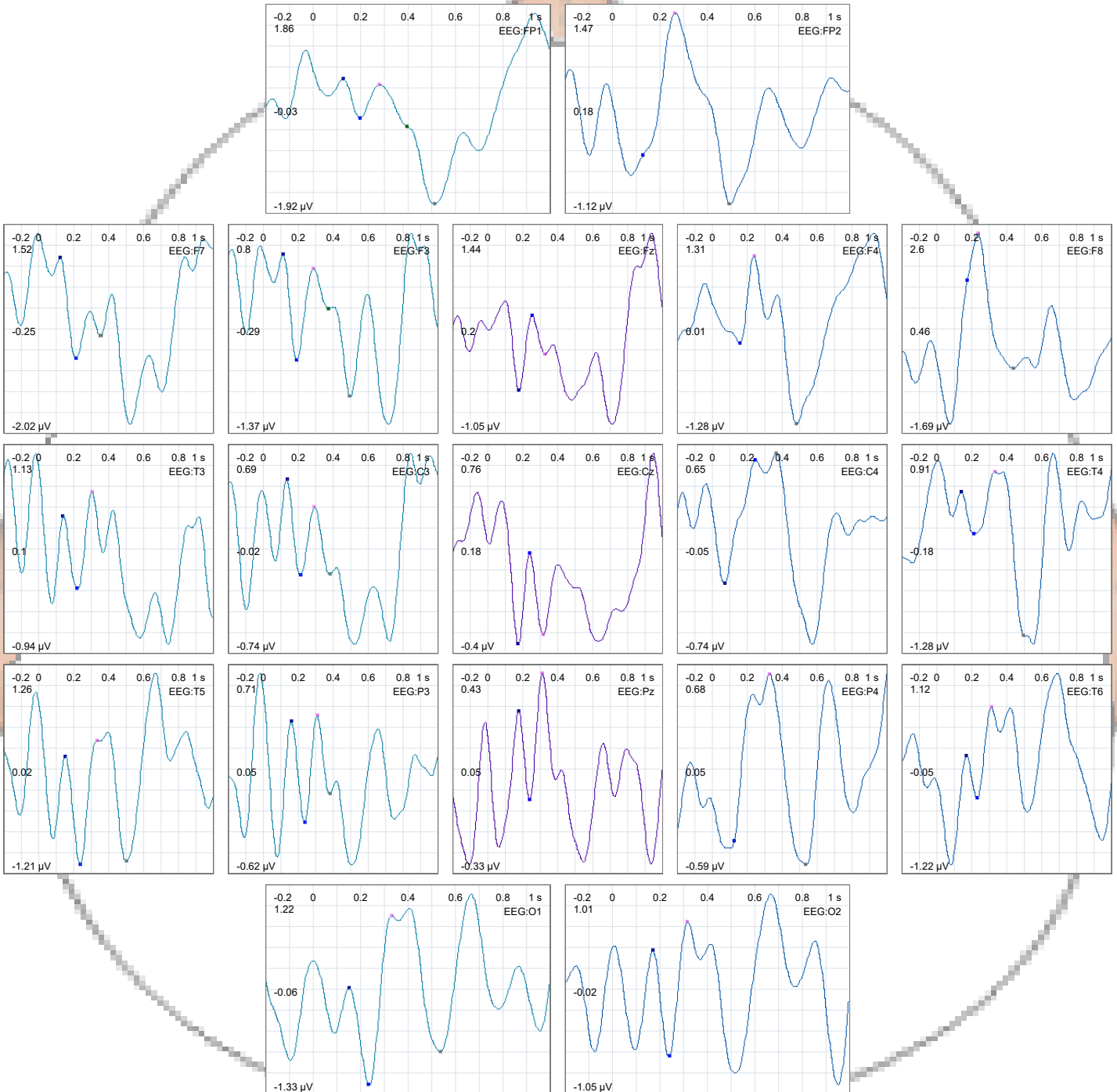
Gender: Male
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Weight: 116 lbs
Patient Code: 945349

Height: 5 ft 5 in
BMI: 19.3

Physician Only Report

Exam Date: Sep 28 2023 16:31
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EVENTS SUMMARY

Start Time	Duration	SpO2	Spike & Sharp	PolySpikes	Periodic	Suppression	BurstSuppression Irregular	
Total	25 min 40 sec	98 % (96-100)	1	3	0	10	0	29
16:31	8 min 56 sec	98 % (96-99)	1	3	0	0	0	18
16:40	10 min	98 % (97-100)	0	0	0	5	0	10
16:50	6 min 44 sec	98 % (96-100)	0	0	0	5	0	1

MAIN EVENTS

	Events	Total Duration	Longest	Mean Duration
EEG:Pz: Suppression	5	25 sec	14 sec	5 sec
EEG:T3: Irregular	5	16 sec	6 sec	3 sec 203 ms
EEG:T6: Irregular	5	17 sec	6 sec	3 sec 403 ms
EEG:P4: Irregular	15	54 sec	8 sec	3 sec 605 ms
EEG:T4: Irregular	7	28 sec	8 sec	4 sec 6 ms
EEG:P3: Suppression	9	40 sec	13 sec	4 sec 453 ms
EEG:O2: Irregular	5	24 sec	9 sec	4 sec 809 ms

PARAMETERS

	Average	Min	Max
SPO2	98	96	100

Spike detection software was utilized; however, this study was not performed for the diagnosis of epilepsy; automated spike detection software often identifies EEG related artifacts.

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Printed: Oct 5 2023 08:07

Sample Patient 2

Gender: Male

Age: 16 (DOB: Jul 7 2007)

Weight: 116 lbs

Patient Code: 945349

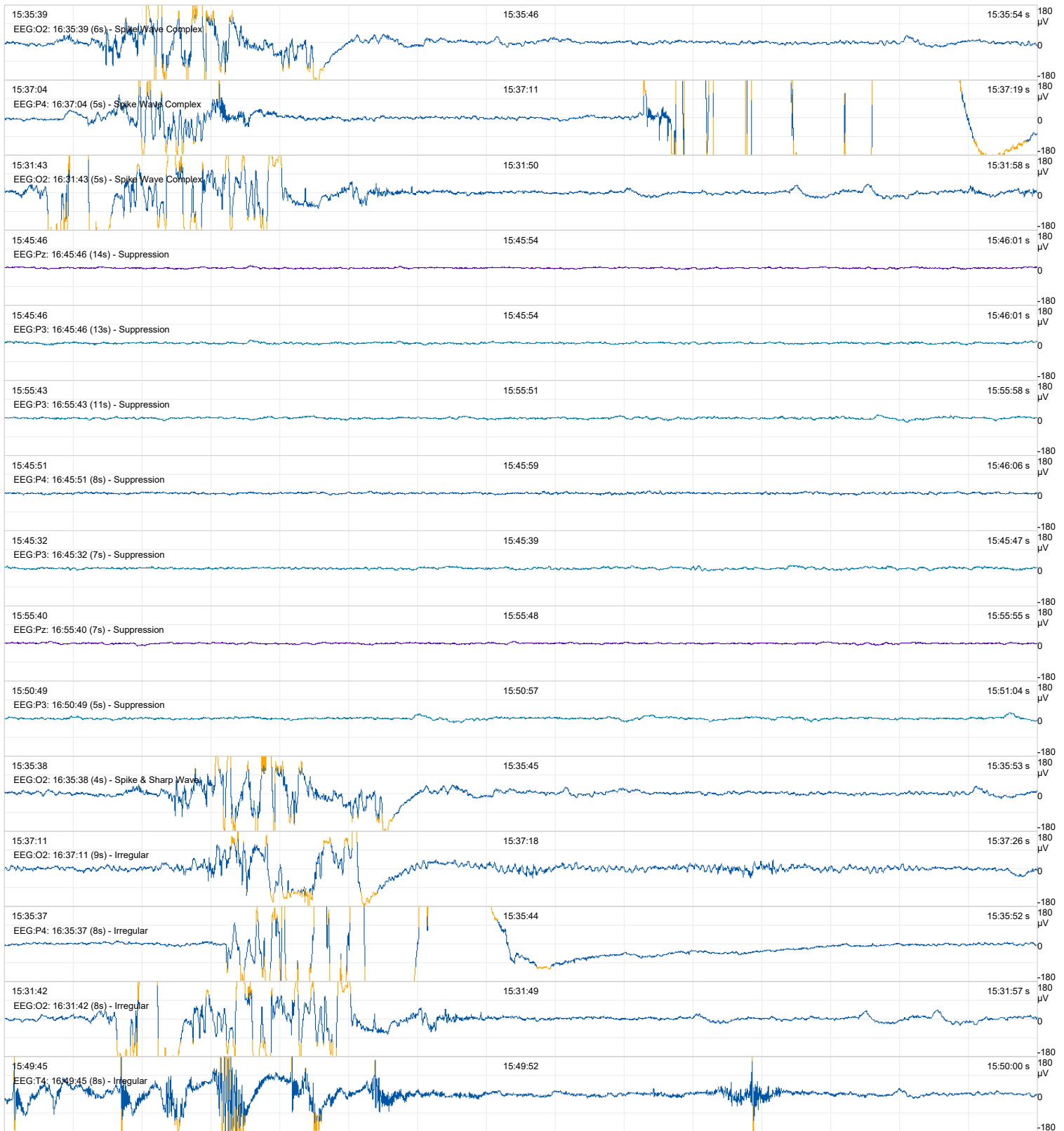
Height: 5 ft 5 in

BMI: 19.3

Physician Only Report

Exam Date: Sep 28 2023 16:31

Le Mente Behavioral Health



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Printed: Oct 5 2023 08:07

Sample Patient 2 Gender: Male Age: 16 (DOB: Jul 7 2007) Patient Code: 945349

Exam Date: Sep 28 2023 16:31

4 min / page;



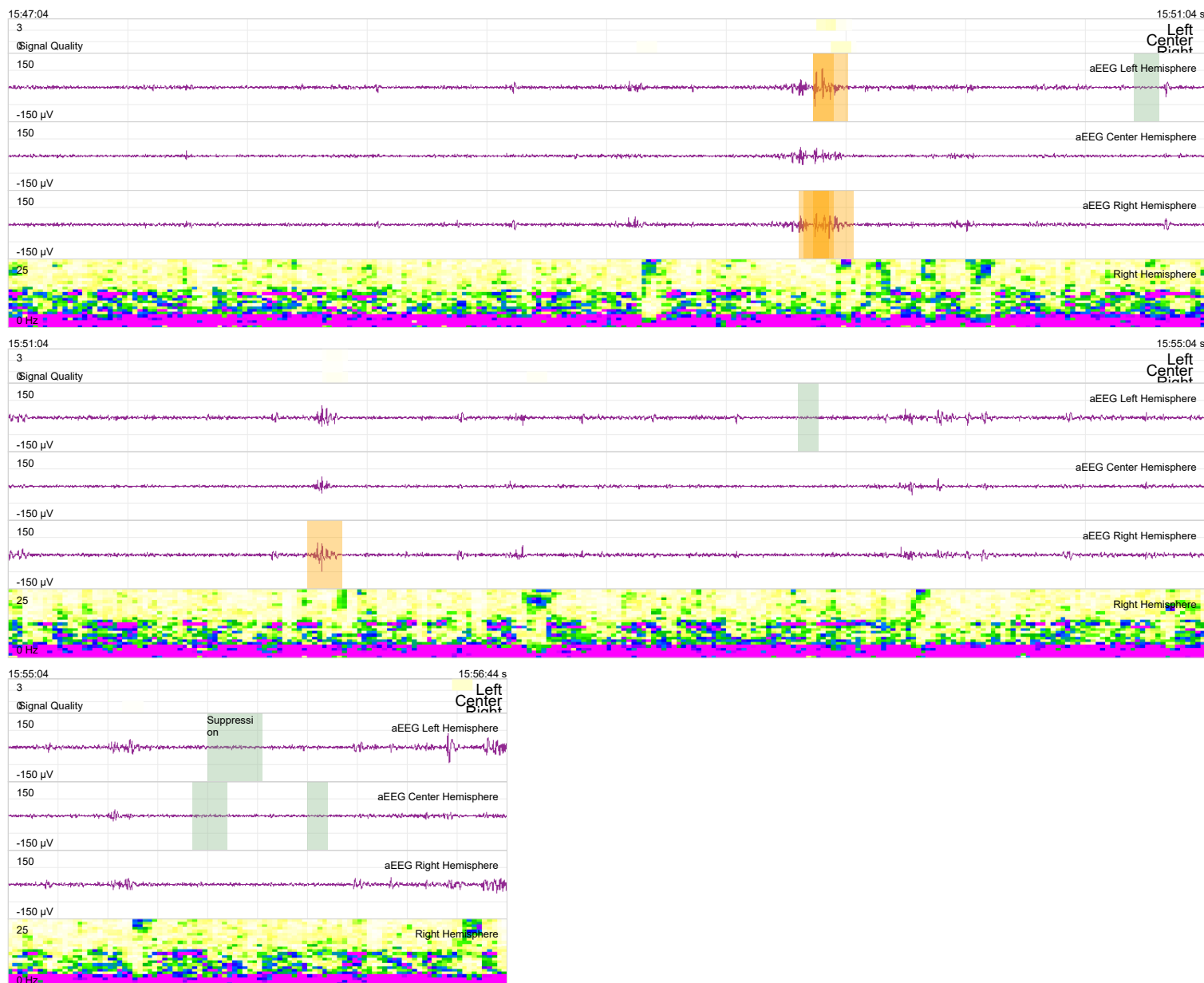
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NeuroFeedback Recommendations:

The following implications for neurotherapy are offered based upon the clinical evaluation of the patient as well as the reference data base results. These suggestions for neurotherapy should be evaluated with caution and should only be considered as possible strategies that the clinician may have considered in his/her evaluation. Protocols may be adjusted due to differentiating patient outcomes and objective and subjective reports throughout the training process.

The clinician may also consider using one or more strategies with the priority of treatment in the order presented below:

Reward frequency activity 18-20 Hz (Beta2) at EEG:F3.

Reward frequency activity 16-18 Hz (Beta2) at EEG:F3.

Reward frequency activity 20-22 Hz (Beta3) at EEG:F7.

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Physician Only Report

Exam Date: Sep 28 2023 16:31
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Recorded time

Start Date	2023-09-28 15:31:04
Duration	5 min 0 sec (644 beats)
High Pass Filters	3.4 Hz

Ventricular Details

PVC - Ventricular Ectopy	4 beats (0.6%)
Ventricular Couplet	0 episodes

Pause / Block

Irregular / Artifact beat	66 beats (10.2%)
---------------------------	------------------

HRV Analysis

SDNN	132 ms
------	--------

Heart Rate

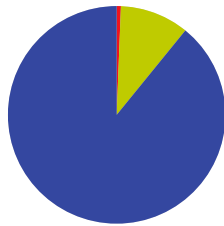
Average Heart Rate	99 bpm
Fastest rate	169 bpm
Slowest rate	70 bpm

Supraventricular Details

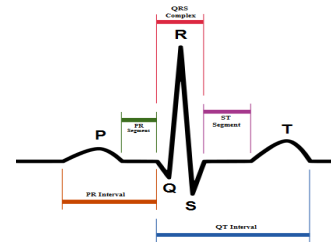
PAC - Supraventricular Ectopy	0 beats (0%)
Supraventricular Couplet	0 episodes

QRS Analysis

QRS	61 ms
QT / QTc	290 ms / 380 ms
PR int / seg	67 ms / 27 ms
ST int / seg	236 ms / 132 ms

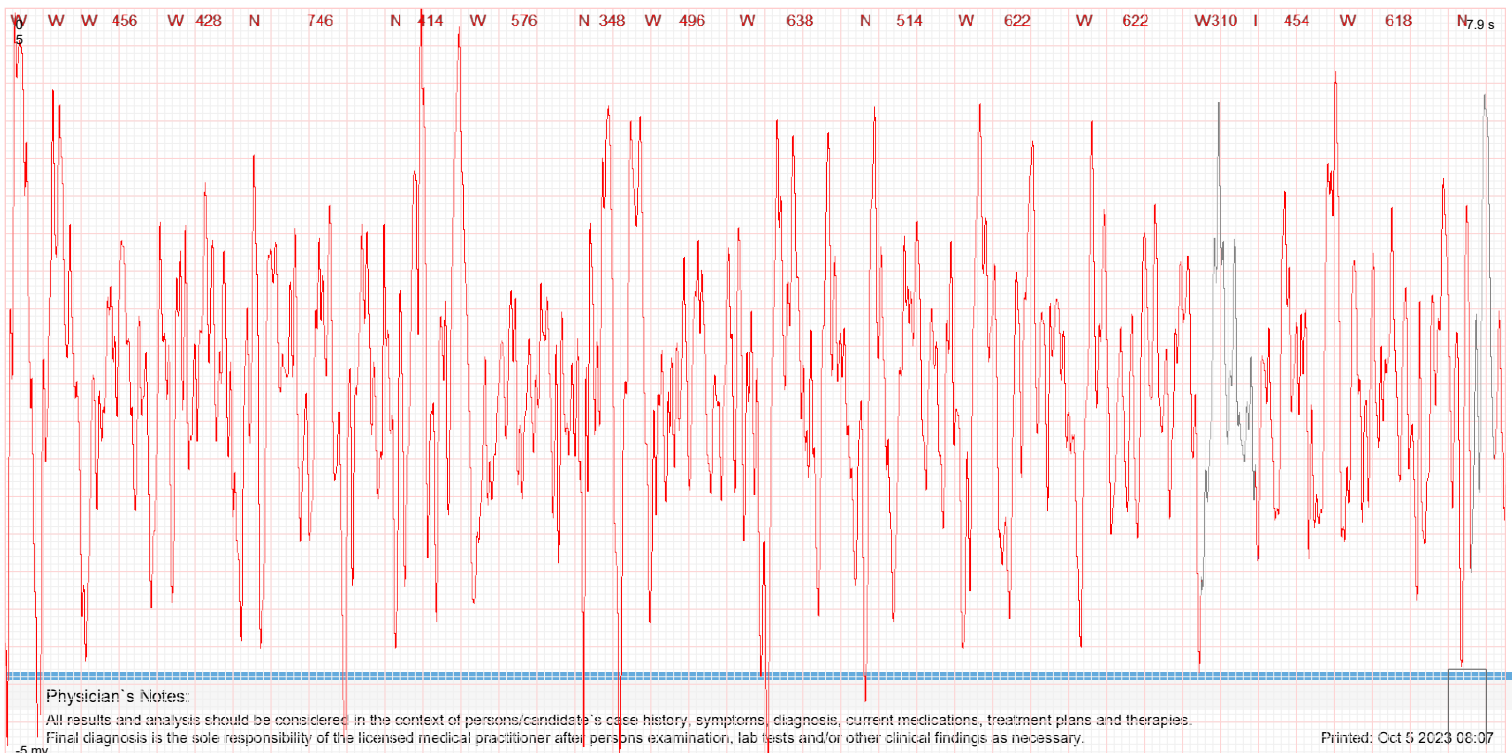


■ PAC - Atrial Extrasystole: 0%
■ PVC - Ventricular Extrasystole: 0.6%
■ Irregular / Artifact beat: 10.2%
■ Normal: 89.1%



Interpretations:

Medications: Wellbutrin XL (bupropion hcl) 150 mg



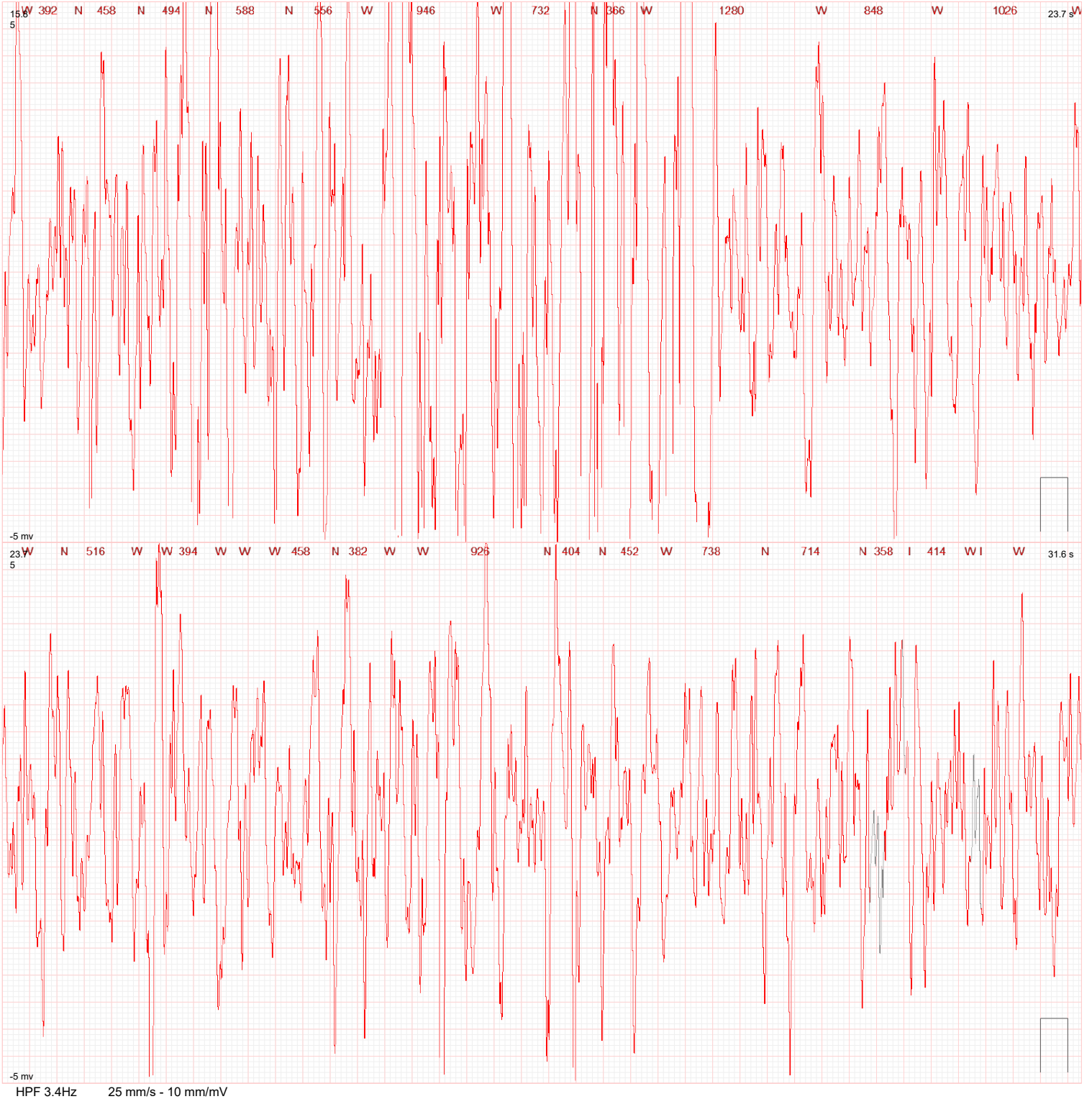
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Time	Channel	Event	Status	QRS	QT	QTc	ST elev	ST int	ST seg	PR int	PR seg	Previous RR	Next RR
16:33:23	ECG Events	PVC - Ventricular Extrasystole	Auto 2	65ms	294ms	341ms	-0.86mv	220ms	122ms	62ms	16ms	410ms	744ms
16:34:09	ECG Events	PVC - Ventricular Extrasystole	Auto 2	77ms	286ms	360ms	-0.74mv	200ms	106ms	78ms	46ms	418ms	632ms
16:34:37	ECG Events	PVC - Ventricular Extrasystole	Auto 2	82ms	310ms	353ms	0.31mv	220ms	116ms	86ms	50ms	414ms	772ms
16:34:52	ECG Events	PVC - Ventricular Extrasystole	Auto 2	38ms	0ms	0ms	-0.37mv	288ms	188ms	0ms	0ms	432ms	746ms

Physician's Notes:

Sample Patient 2

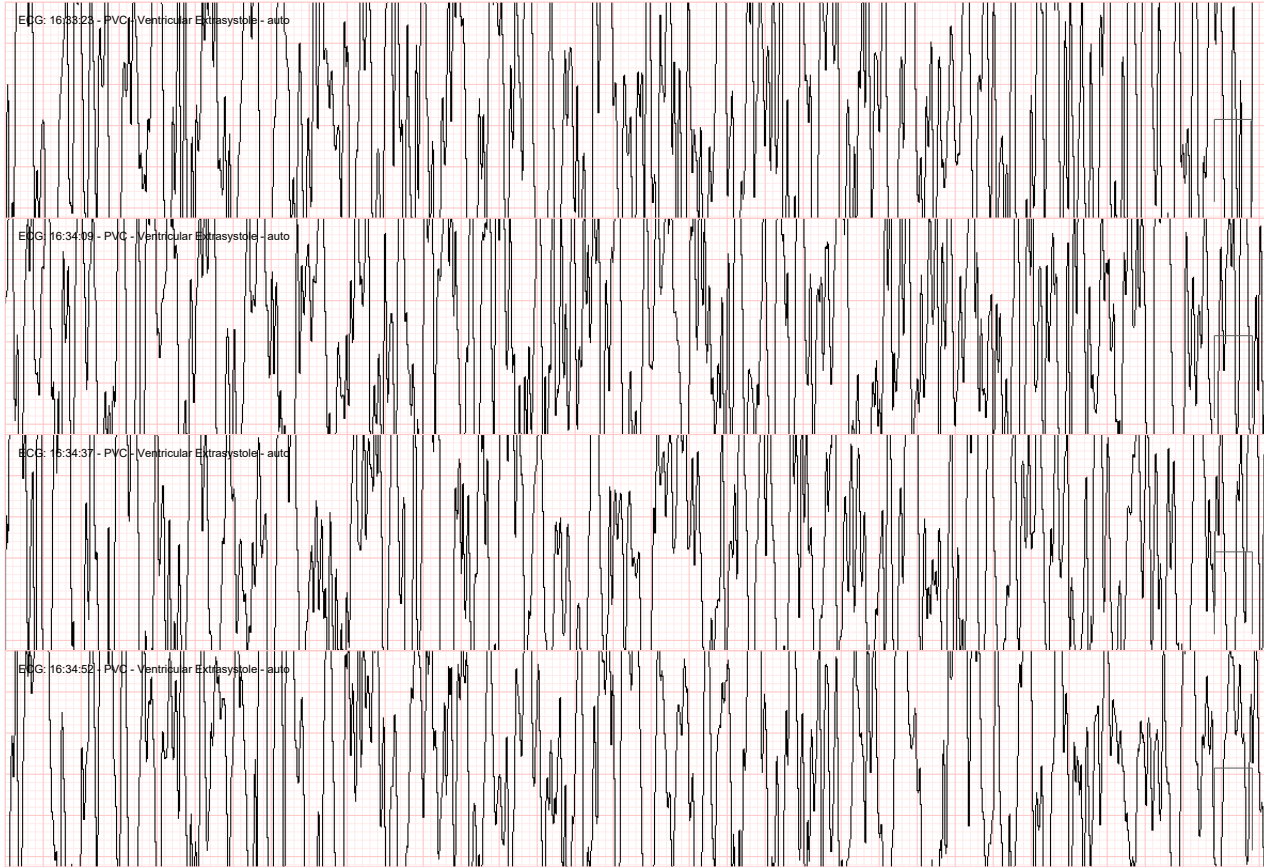
Gender: Male

Age: 16 (DOB: Jul 7 2007)

BMI: 19.3

Exam Date: Sep 28 2023 16:31

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QRS = 65ms
QTc = 341ms
ST elev = -0.86mv
ST int = 220ms
ST seg = 122ms
PR int = 62ms
Previous RR = 410ms
Next RR = 744ms

QRS = 77ms
QTc = 360ms
ST elev = -0.74mv
ST int = 200ms
ST seg = 106ms
PR int = 78ms
Previous RR = 418ms
Next RR = 632ms

QRS = 82ms
QTc = 353ms
ST elev = 0.31mv
ST int = 220ms
ST seg = 116ms
PR int = 86ms
Previous RR = 414ms
Next RR = 772ms

QRS = 38ms
ST elev = -0.37mv
ST int = 288ms
ST seg = 188ms
Previous RR = 432ms
Next RR = 746ms

25 mm/s - 10 mm/mV

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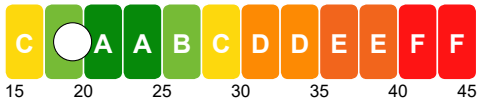
Exam Date: Sep 28 2023 16:31
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Ideal Body Weight = 136 Lbs
Real Body Weight = 116 Lbs
Basal Metabolic Rate (BMR) = 1511 cal
Total Daily Energy Expenditure = 1965 cal

■ Normal ■ Borderline Normal ■ Mild - Moderate ■ Borderline Abnormal ■ Abnormal - Severe

Body Mass Index (BMI) = 19.3

(Normal value range: 19 - 25)



Body mass index, or BMI, is a new term to many people. However, it is the measurement of choice for many physicians and researchers and it is used to estimate a healthy body weight based on a person's height, assuming an average body composition.

It is the most widely used diagnostic tool to identify weight problems within a population. Body mass index is defined as the individual's body weight divided by the square of his or her height.

The body mass index can be used to identify if you are overweight. A drawback of the calculation is that if you are muscular it can suggest you are overweight due to muscle density.

An elevated BMI is associated with Metabolic Syndrome and is tied to an elevated risk of type 2 diabetes, hypertension, and cardiovascular disease.

Risk of Associated Disease According to BMI and Waist Size

18.5 or less: Underweight - N/A
19 - 25: Normal - very low risk of associated diseases
26 - 29: Overweight - prone to health risks
30 - 40: Overweight to Obese - high risk of associated diseases
40 or greater: Extremely Obese - very high risk of associated diseases

The Basal Metabolic Rate (BMR) shows the calories (energy) your body uses per day while at rest. The Total Daily Energy Expenditure shows the calories needed to maintain your current weight.

For healthy weight management increase your caloric usage (exercise) and decrease your caloric intake below the Total Daily Energy Expenditure towards the Basal Metabolic Rate (BMR).

Eating a high quality, nutrient dense diet (fresh vegetables (cooked and raw), chicken, fish, eggs, and yogurt) and staying away from carbohydrates and poor quality fats helps to prevent cravings and aids in weight loss. If you go too far below the Basal Metabolic Rate (BMR) your metabolism may slow down making weight management more difficult.

Physician's Notes:

Sample Patient 2

Gender: Male

Age: 16 (DOB: Jul 7 2007)

Current Medications: Wellbutrin XL (bupropion hcl) 150 mg

Weight: 116 lbs

Patient Code: 945349

Height: 5 ft 5 in

BMI: 19.3

Physician Only Report

Exam Date: Sep 28 2023 16:31

Le Mente Behavioral Health

Anxiety, Feelings of worry: 1 of 5

Change in handwriting: 4 of 5

Can't find the correct word to convey in speech: 1 of 5

Difficult to find words or understand words: 5 of 5

Don't have enough energy to get moving in the morning and sustain: 1 of 5

Chronic Pain: 1 of 5

Depression / Feelings of sadness: 4 of 5

Decreased Attention / Distracted: 5 of 5

Difficulty multitasking/ disorganized: 5 of 5

Do things that result in isolation or distancing from others: 3 of 5

Difficulty following directions: 5 of 5

Addiction / substance use: 5 of 5

Aggressive, or hostile impulsivity: 1 of 5

Physician's Notes: