Routine EEG examination used in this study (without feedback).

**Routine EEG Test**

**Introduction**

You are being invited to participate in an EEG education study led by Fabio Nascimento, Roy Strowd, Samantha Yap, Rebecca Fasano, Stefan Rampp, William Tatum, and Sandor Beniczky whose purpose is to obtain a baseline knowledge about routine EEG (rEEG) findings among trainees. All information will be collected anonymously and cannot be linked back to you.

This rEEG test comprises 30 multiple choice question and contains both normal and abnormal EEG findings.

Please note that you may zoom in and out EEGs by using zoom settings in your web browser.

1. By clicking "I agree" below you are indicating that you have read and understood the instructions above and agree to participate in this educational program, whose anonymized findings will be analyzed and subsequently published.

   - [ ] I agree
   - [ ] I disagree

**Routine EEG Test**

2. What country are you from?

   [ ]

3. What is your profession?

   - [ ] Medical student
   - [ ] Adult neurology resident
   - [ ] Pediatric neurology resident
   - [ ] EEG/epilepsy clinical fellow
   - [ ] Other (please specify)

   [ ]
Routine EEG Test
Medical Student Year

4. What year of training are you in?

- 1st year (MS1)
- 2nd year (MS2)
- 3rd year (MS3)
- 4th year (MS4)
- 5th year (MS5)
- 6th year and above (MS6 and above)

Routine EEG Test
Adult or Pediatric Neurology Resident

5. What year of training are you in?

- Postgraduate year 1 (PGY1)
- Postgraduate year 2 (PGY2)
- Postgraduate year 3 (PGY3)
- Postgraduate year 4 (PGY4)
- Postgraduate year 5 (PGY5)
- Postgraduate year 6 and above (PGY6 and above)

6. How many weeks dedicated to EEG learning have you undergone in your training?

- 0
- 1-4
- 5-8
- 9-12
- >12

Routine EEG Test
Level of Confidence
7. What is your level of confidence identifying each of the findings on EEG independently/without supervision?

<table>
<thead>
<tr>
<th></th>
<th>Not at all confident</th>
<th>Only slightly confident</th>
<th>Somewhat confident</th>
<th>Moderately confident</th>
<th>Very confident</th>
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<tbody>
<tr>
<td>States of wakefulness and sleep</td>
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<td>Sleep structures</td>
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<td>spikes, and posterior slow</td>
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<td>waves of youth)</td>
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<td>Artifacts (such as EKG artifact</td>
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<td>and electro pop)</td>
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</tbody>
</table>

**Routine EEG Test**

1) What finding/pattern is shown on the EEG below/within the red box?

This is an adult patient.
* 8. Please select correct answer.

- Normal posterior dominant rhythm (PDR)
- Mu rhythm
- Lambda waves
- Posterior slow waves of youth
- Positive occipital sharp transients of sleep (POSTS)

**Routine EEG Test**

2) What finding/pattern is shown on the EEG below/within the red box?
Routine EEG Test
3) What finding/pattern is shown on the EEG below/within the red

* 9. Please select correct answer.

- Generalized seizure
- Sleep spindles
- Mu rhythm
- Breach rhythm
- Focal seizure
Bipolar

Average

* 10. Please select correct answer.

- Myogenic artifact  
- Focal epileptiform discharges, spike
- Wicket  
- Focal epileptiform discharges, sharp
- Sharp transient of the background/non-epileptiform
Routine EEG Test

4) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

Average
1. Please select correct answer.

- Focal epileptiform discharges, sharps
- Focal epileptiform discharges, spikes
- Wickets
- Focal seizure
- Mu rhythm

**Routine EEG Test**

5) What finding/pattern is shown on the EEG below/within the red box?

Bipolar
* 12. Please select correct answer.

- Vertex waves
- Focal epileptiform discharges, spikes
- Occipital seizure
- Positive occipital sharp transients of sleep (POSTS)
- Lambda waves

**Routine EEG Test**
6) What finding/pattern is shown on the EEG below/within the red box?
Bipolar

Average

* 13. Please select correct answer.

- [ ] Midline theta rhythm (Ciganek rhythm)
- [ ] Myogenic artifact
- [ ] Mu rhythm
- [ ] Rhythmic mid-temporal theta of drowsiness (RMTD)
- [ ] Focal seizure
Routine EEG Test

7) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

Average
14. Please select correct answer.

- Lambda wave
- Myogenic artifact
- Small sharp spike
- Wicket
- EKG artifact

**Routine EEG Test**
8) What finding/pattern is shown on the EEG below/within the red box?
Note: this pattern occurred 30-60 seconds after hyperventilation.

Bipolar
* 15. Please select correct answer.

- Photoparoxysmal response
- K complexes
- Myogenic artifact
- Hyperventilation-induced generalized slowing (normal pattern)
- Sweat artifact

**Routine EEG Test**

9) What finding/pattern is shown on the EEG below/within the red box?
Bipolar

Average

* 16. Please select correct answer.

- Wicket
- Focal epileptiform discharge, sharp
- Focal epileptiform discharge, spike
- Myogenic artifact
- Sharp transient of the background/non-epileptiform
Routine EEG Test
10) What finding/pattern is shown on the EEG below?

Bipolar

Average
* 17. Please select correct answer.

- Stage 3 sleep (NREM)
- Drowsiness
- Rapid eye movement (REM) sleep
- Wakefulness
- Stage 2 sleep (NREM)

**Routine EEG Test**

11) What finding/pattern is shown on the EEG below/within the red box?

---

Bipolar

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Average
18. Please select correct answer.

- Generalized epileptiform discharge
- Vertex wave
- K complex
- Positive occipital sharp transient of sleep (POSTS)

**Routine EEG Test**

12) What finding/pattern is shown on the EEG below/within the red box?

**Bipolar**

![Bipolar EEG Image]

**Average**

![Average EEG Image]
19. Please select correct answer.

- EKG artifact
- Focal seizure
- Focal epileptiform discharges, spikes
- Small sharp spikes
- Wickets

**Routine EEG Test**

13) What finding/pattern is shown on the EEG below/within the red box?

**Bipolar**
20. Please select correct answer.

- Vertex wave
- Generalized epileptiform discharge
- EKG artifact
- Focal epileptiform discharge, sharp
- K complex

**Routine EEG Test**

14) What finding/pattern is shown on the EEG below/within the red box?

Bipolar
21. Please select correct answer.

- 60 Hz artifact
- Generalized epileptiform discharges
- Generalized seizures
- Focal epileptiform discharges, spikes
- Photic driving

**Routine EEG Test**
15) What finding/pattern is shown on the EEG below/within the red box?
This patient has a history of a prior craniotomy in the right anterior quadrant.
22. Please select correct answer.

- Myogenic artifact
- Focal epileptiform discharges, spikes
- Focal seizure
- Breach
- Focal epileptiform discharges, sharps
Routine EEG Test
16) What finding/pattern is shown on the EEG below/within the red box?
This is a 6-year-old patient.

Bipolar

Average
23. Please select the correct answer.

- Patting artifact
- Hypnagogic hypersynchrony
- Excessive beta frequency
- Hypsarrhythmia
- Generalized seizure

**Routine EEG Test**

17) What finding/pattern is shown on the EEG below/within the red box?

**Bipolar**

![Bipolar EEG graph]

**Average**

![Average EEG graph]
24. Please select correct answer.

- EKG artifact
- Generalized seizure
- Generalized polyspikes
- Myogenic artifact
- Wickets

**Routine EEG Test**

18) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

Average
25. Please select correct answer.

- Eye blinks
- K complexes
- Generalized epileptiform discharges
- Vertex waves
- Generalized irregular delta slowing

**Routine EEG Test**

19) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

![Bipolar EEG Image]

Average

![Average EEG Image]
26. Please select correct answer.

- Eye fluttering
- Generalized seizure
- Photic driving
- Sweat artifact
- Generalized irregular delta slowing

**Routine EEG Test**
20) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

![Bipolar EEG](image-1)

Average

![Average EEG](image-2)
27. Please select correct answer.

- Sweat artifact
- Generalized irregular delta slowing
- Eye fluttering
- Eye blinks
- Lateral eye movements

**Routine EEG Test**
21) What finding/pattern is shown on the EEG below/within the red box?

Bipolar
28. Please select correct answer.

- EKG artifact
- Focal epileptiform discharges, sharps
- Focal epileptiform discharges, polyspikes
- Eye blinks
- Wicket spikes

**Routine EEG Test**

22) What finding/pattern is shown on the EEG below/within the red box?
* 29. Please select correct answer.

- Generalized regular/rhythmic delta slowing
- Generalized epileptiform discharges, 3 Hz, polyspike-wave
- Generalized paroxysmal fast activity
- Eye fluttering
- Generalized epileptiform discharges, 3 Hz, spike-wave
Routine EEG Test
23) What finding/pattern is shown on the EEG below/within the red box?
This is a 6-year-old patient.

Bipolar

Average
* 30. Please select correct answer.

- Normal posterior dominant rhythm (PDR)
- Generalized irregular theta slowing
- Positive occipital sharp transients of sleep (POSTS)
- Mu rhythm
- Lambda waves

**Routine EEG Test**

24) What finding/pattern is shown on the EEG below/within the red box?

Bipolar
31. Please select correct answer.

- Focal irregular delta slowing
- Focal epileptiform discharge, sharp
- Focal epileptiform discharge, polyspike
- Electrode pop
- Focal epileptiform discharge, spike

**Routine EEG Test**

25) What finding/pattern is shown on the EEG below/within the red box?
Bipolar

Average

* 32. Please select correct answer.

- Generalized seizure
- Electrode pop
- 50 Hz artifact
- Focal seizure
- Musce artifact
Routine EEG Test

26) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

Average
33. Please select correct answer.

- Focal seizure
- Generalized epileptiform discharges, 3 Hz
- Eye fluttering
- Generalized epileptiform discharges, <2.5 Hz
- EKG artifact

**Routine EEG Test**

27) What finding/pattern is shown on the EEG below/within the red box?

Bipolar
34. Please select correct answer.

- Focal seizure
- EKG artifact
- Generalized seizure
- Breach rhythm
- Posterior dominant rhythm (PDR), asymmetric

**Routine EEG Test**

28) What finding/pattern is shown on the EEG below/within the red box?
* 35. Please select correct answer.

- Generalized epileptiform discharges, 3-5 Hz
- Focal epilepsy
- EKG artifact
- Generalized epileptiform discharges, \( \leq 2.5 \text{ Hz} \)

**Routine EEG Test**
29) What finding/pattern is shown on the EEG below/within the red box?

Bipolar

Average
36. Please select correct answer.

- Electrode pop
- Lateral rectus spike
- Focal epileptiform discharge, spike
- EKG artifact
- Focal epileptiform discharge, sharp

**Routine EEG Test**

30) What finding/pattern is shown on the EEG below?
37. Please select correct answer.

- Generalized seizure
- Sweat artifact
- Stage 3 sleep (NREM)
- Generalized regular/rhythmic delta slowing
- Focal regular/rhythmic delta slowing