Ten Questions to be Answered During the Outpatient Neurology Required Elective

NAME OF RESIDENT:_____

DATE OF ELECTIVE:_____

QUESTIONS: (please provide answers on a separate sheet of paper)

1. A 14 y.o. female presents to the office with a 2 year history of daily, non-progressive headaches of mild to moderate intensity. She is taking 800 mg of Ibuprofen 3 times a day which provides her no relief. A recent trip to the Emergency Department provided her with a script for 5/500mg of Vicodin which she claims brings the pain down "a bit". Her neurological examination including fundoscopic exam is normal.

   Please answer the following questions concerning the management of this patient:

   *How would you classify her headache disorder and what features led you to your conclusion?

   *Why does she <u>not</u> have migraine headache?

   *Describe the treatment plan that you would advise for this patient (include pharmacological and other interventions here).

2. An 8 y.o. boy comes into the office with a 6 month history of intermittent headaches. They are described as bifrontal in location and are associated with a stomach ache and photosensitivity. They last an average of 90 minutes each and occur twice a week. His neurological (and fundoscopic exams are normal).

   Please answer the following questions concerning the management of this patient:

   *How would you classify his headache disorder and what features led you to your conclusion?

   *Describe the clinical features of Childhood Migraine headaches (include location, quality, duration, frequency, exacerbating features, relieving features, associated autonomic symptoms, and pertinent family history features typically found in childhood migraine).

   *What are the differences between and implementation of "Acute Symptomatic" and "Preventative" treatments for patients with migraine? Under what conditions would you choose to offer "Acute Symptomatic" treatment? "Preventative" treatment?

*Describe your treatment approach to this child's treatment (be specific about what pharmacological and non-pharmacological interventions you would offer and how you would counsel the family about the expectations for treatment).

3. An obese 16 y.o. female comes into your office with a three month history of daily, progressive, debilitating headaches. They sometimes awaken her from sleep and are worse when coughing or sneezing. She also complains of diplopia when looking to the left and transient visual obscurations. Her neurological examination is normal except for the present of moderate bilateral papilledema and a left Abducens nerve palsy.

   Please answer the following questions concerning the management of this patient:

   *Classify the type of headache this patient is likely suffering from and describe how you came to this conclusion.

   *What would advise concerning this patient's diagnostic work up at this point.

   *Compare and contrast clinical features of headaches due to raised intracranial pressure and migraine headaches.

   *If neuroimaging for this patient turns out to be normal, what is your next diagnostic step and why?

   *Describe treatment for pseudotumor cerebri.

4. A seven-year-old child comes to the office with complaints of hyperactivity and a short attention span. He is repeating first grade after failing last year. His teachers think he may have ADHD.

   *What questions would ask this mother about her child's behavior to make a diagnosis of ADHD?

   *What other disorders are frequently associated with ADHD (co-morbid conditions)? What questions would ask this mother to clarify if her child has any of these disorders?

   *What is the mechanism of action of stimulants? What potential side effects need to be monitored? Which of these side effects are due to "peak effects" of having too much drug in the system at one time and which are due to overall daily dosing?

*How would you approach stimulant treatment in this child? (be specific and recommend a medication and starting dose and titration)

5. A 24 month old patient comes in to the office for a well child visit. His mother has concerns that he is delayed with his language skills. In addition, he does not seem to play well with other toddlers and avoids being hugged or cuddled. He does not like to go to bed at night and throws severe tantrums frequently.

   *What are the clinical features of autism?

   *What questions would you ask this mother to try and clarify if he has an autistic spectrum disorder? (include DSM-IVR questions, "sensory integration" questions, as well as questions concerning common behaviors seen in autism that are not necessarily specific to autism).

   *What issues would you address with this mother if her child is felt to have an autism spectrum disorder?

   *What treatments might this mother read about on the internet for autism?

   *What would recommend for this child at this point if you suspect an autism spectrum disorder?

   *Please define the main features of Asperger syndrome.

6. A 22 month old child comes into the office with his mother who has concerns about his developmental progress. He sat at 10 months of age and just recently started cruising. He says 2 words and can point to 3 body parts. He does not wave "bye-bye" but does give kisses.

   *Define what is meant by "Global Developmental Delay".

   *What is the definition of "Cerebral Palsy?"

   *Define the clinical features that differentiate a "Static Encephalopathy" from a "Neurodegenerative Disorder".

7. A seven-year old girl is seen for a well-child visit. On examination, you notice significant ligamentous laxity and generalized hypotonia. She is clumsy with her fine finger movements and cannot tandem walk well. Her strength appears to be normal on direct testing. She has failed first grade and will be repeating it again this year.

*Define hypotonia.

*Describe the difference between "central" hypotonia and hypotonia due to a lower motor neuron disorder. What physical exam findings help to distinguish between "central" and "peripheral" hypotonia?

*What are neurological "soft signs"?

*What is an "IEP" and what services can it provide for?

8. An 18 month old is seen in the emergency room following a two minute convulsive seizure. It is 45 minutes after the seizure and following Tylenol administration, he appears to be alert and smiling and has a non-focal neurological examination. His temperature upon arrival to the ED was 102^0 (f) and he clearly has a viral syndrome. He has had two prior febrile seizures and his mother had a febrile seizure as a child.

   *Describe the benign syndrome of childhood febrile seizures.

   *What are the risk factors for the development of later epilepsy in a child following his/her first febrile seizure?

   *What are the risk factors for recurrent febrile seizures?

   *Discuss possible diagnostic work up for patients with febrile seizures and give specific recommendations as to when to perform or not perform the following diagnostic studies: Blood Culture, CBC, Electrolytes, EEG, Neuroimaging, LP)?

   *What specific diagnostic work up and treatment would you recommend for the patient above?

9. A previously healthy and developmentally normal 11 y.o. comes into the office after being released from the emergency department the night before. She was found in bed by her parents having a generalized convulsive seizure. The seizure lasted approximately two minutes and was followed by a 45 minute period of confusion with an associated headache. She is presently back to baseline with a normal neurological examination. There is no family history of epilepsy.

   *What diagnostic work up would you recommend for this patient with a first unprovoked seizure? (Specifically, address the usefulness and rational behind ordering or not ordering electrolytes, CT imaging, MRI imaging, urine toxicology screen, lumbar puncture, and EEG).

   *What are the risk factors that may increase a child's risk for a second seizure?

*Why is anticonvulsant therapy recommended for patients at high risk for recurrent unprovoked seizures and not for those at low risk? (Explain some of the risks and benefits to using anticonvulsant therapy).

*What risk factors need to be considered when making a decision to taper a patient off anticonvulsant therapy after they have been seizure-free for over 2 years?

10. A previously healthy 16. y.o. boy is brought into the Emergency Department by his parents after taking a blow to the head during a football game. He is reported to have briefly lost consciousness (less than 10 seconds) and now complains of a headache along with some mild nausea. He had a previous concussion without loss of consciousness 3 months prior due to another football-related head injury, but his symptoms cleared 2 weeks later. His current GCS score is 15. He has a normal mental status examination and a non-focal neurological exam. His head and neck exam are likewise normal.

    * Neuroimaging with CT should be undertaken following minor head injury under what clinical circumstances? Does this child need a CT scan of the head? Why or why not?

    *Please define what a concussion is and list its various symptoms.

    *List the various grades of concussion and recommendations for abstinence from contact sports for each of the grades.

    *When should this child be allowed to return to contact sports?