Neurology Goals	Objectives by Competency and Level of Training			Assessment Methods
	PL-1	PL-2	PL-3	
GOAL 1: Prevention, Counseling and Screening. Understand the role of the pediatrician in preventing neurologic disease and in counseling and screening individuals at risk for these diseases.	**Patient Care:** Provide routine neurological prevention counseling to parents and patients about: 1. Prevention of head and spinal cord trauma through use of seat belts, car seats, helmets, firearm safety, playground safety and diving injuries 2. Avoidance of environmental toxins including lead, insecticides and other household poisons 3. Public health and legislative strategies to reduce head and spinal cord injury	**Patient Care:** Provide specific counseling to parents and patients with neurological disorders, addressing: •The etiology and natural course of epilepsy, and treatment options and precautions for children with this condition •The expected course, resolution, risk of seizure disorder, and potential treatment of simple febrile seizures	**Patient Care:** Provide specific counseling to parents and patients with neurological disorders, addressing: •Reducing long-term sequela from neurologic injury or congenital CNS disorders through rehabilitation and early intervention •Providing appropriate home stimulation for preterm infants at risk for developmental delay	Direct Observation Global Evaluation
	Medical Knowledge: Understand normal neurological development, including language acquisition, cognition, motor development, loss of primitive reflexes, and socialization	**Medical Knowledge**: Know age-related changes in blood pressure and normal ranges from birth through adolescence.	**Medical Knowledge**: Know how the primary care of children with chronic kidney disease differs from routine primary care, including changes in immunization schedules, management of growth and development, and learning and behavioral issues.	Global Evaluation In-Training Exam
GOAL 2: Diagnose and manage patients with common neurologic conditions with referral as needed 1. Absence seizures 2. Simple febrile seizures 3. Static encephalopathy and cerebral palsy follow-up and co-management 4. Headaches, including migraine and tension headaches 5. Closed head trauma and simple linear skull fractures without evidence of concussion 6. Transient neurological disturbances due to drug ingestions (e.g., antihistamines, benzodiazepams) 7. Simple generalized tonic-clonic seizures 8. Viral meningitis 9. Attention problems including ADHD 10. Simple tics	**Patient Care:** 1. Obtain accurate, relevant history efficiently, demonstrating a developmentally appropriate and prioritized approach. 2. Perform accurate, targeted but thorough PE which is developmentally appropriate 3. Synthesize all available clinical information into a treatment plan 4. Explain the findings on clinical history, examination and investigation that suggest a seizure disorder and classify the seizure as generalized (including absence), focal or complex partial. 5. Take a thorough headache history including family history of headaches, location, duration, frequency, character, triggers and associated symptoms	**Patient Care**: 1. Obtain relevant historical subtleties that inform and prioritize differential diagnoses and diagnostic information 2. Explain the findings on clinical history and examination that suggest neurologic dysfunction that requires further evaluation and treatment. 3. Differentiate a peripheral from a central nervous system lesion, diffuse from focal, and static from progressive neurologic dysfunction. Using this knowledge, correctly localize the site of any lesion 4. Manage uncomplicated seizures using a step-wise approach that begins with the most appropriate anticonvulsant for the type of seizure 5. Manage the symptoms associated with tension headaches, migraine headaches, chronic daily headaches, and sinus disease	**Patient Care:** 1. Role model gathering subtle and reliable information from patient and family 2. Routinely identify subtle or unusual PE findings, demonstrating an understanding of how they influence clinical decision making 3. Modify differential diagnosis and therapy based upon clinical course 4. Distinguish between a temporary neurological dysfunction (e.g., ataxia or lethargy due to anticonvulsant loading dose) from a pathological dysfunction (e.g., trauma, poisoning, severe infection, hypoglycemia, electrolyte imbalance). 5. Identify and appropriately refer and headaches associated with increased intracranial pressure 6. Counsel families about strategies for helping children with headaches of possible psychosomatic or psychosocial origin	Direct Observation Global Evaluation
	Medical Knowledge: 1. Compare and contrast the different methods of obtaining a urine specimen 2. Understand the characteristics of simple febrile seizures, including epidemiology, genetic predisposition, natural history, risk factors for a seizure disorder and treatment options	**Medical Knowledge**: 1. Demonstrate sufficient knowledge to diagnose and treat undifferentiated or emergent medical conditions 2. Understand common episodic events that may mimic seizures and the findings on history and examination that suggest that the event is not epileptic in origin (e.g., breath-holding spells, benign movement disorders, pseudoseizures, common sleep disorders). 3. Identify the indicators for radiologic imaging (CT or MRI) in a patient with headaches.	**Medical Knowledge**: 1. Demonstrate sufficient knowledge to evaluate complex or rare conditions and multiple co-existent conditions 2. Identify the indicators that would lead to a neurology referral for a child with seizures, including infantile onset seizures, seizures that are complicated, intractable, or difficult to diagnose or manage, and status epilepticus	Global Evaluation In-Training Exam
GOAL 3: Conditions Generally Referred. Recognize and initiate management of patients with neurologic conditions that generally require referral. 1. Acute encephalopathy such as that caused by metabolic disturbances, lead ingestion, hypertension, anoxia, or drug/toxin overdose or ingestion 2. Bacterial meningitis 3. Brain tumor 4. Initial evaluation for cerebral palsy 5. Coma 6. Increased intracranial pressure 7. Encephalitis 8. Headaches that are severe, progressive, refractory to simple therapy, or suggestive of malignancy 9. Hydrocephalus 10. Abnormal movements (chorea, ataxia, complex tics) 11. Initial evaluation for mental retardation, loss of neurologic skills, autism 12. Muscle weakness, flaccidity, or paralysis suggestive of Guillain-Barre, muscular dystrophy or hypotonia 13. Neurocutaneous syndromes 14. Complex seizures that are difficult to diagnose or manage, or those that present with status epilepticus or are associated with progressive neurologic impairment 15. Stroke	**Patient Care:** Create a strategy to determine if the following signs and symptoms are caused by a neurologic or neuromuscular disease process: 1. Vomiting 2. Weakness 3. Seizures 4. Failure to thrive 5. Feeding difficulties 6. Developmental delay 7. Spasticity 8. Hypotonia 9. Abnormal movement or tics 10. Headache 11. School problems 12. Behavior problems 13. Sleep problems	**Patient Care**: 1. Discuss the diagnostic value of tests to aid in the diagnosis of neurologic diseases, including indications, limitations, and costs. Discuss the following tests: electroencephalogram (EEG), head computerized tomography scan (CT), head magnetic resonance scan (MR), lumbar puncture, psychometric testing, electromyography (EMG) and nerve conduction velocity (NCV) 2. Develop a step-wise plan for evaluation and treatment for a patient in status epilepticus	**Patient Care:** Recognize immediate life-threatening complications associated with the diagnosis and treatment of renal disorders. Refer for intensive care as indicated.	Direct Observation Global Evaluation
	Medical Knowledge: Compare and contrast the indications, contraindications, side effects and common drug interactions of the most commonly used neurological drugs.	**Medical Knowledge**: For each neurological drug, describe the laboratory tests needed to follow drug therapy, side effects and drug interactions.	**Medical Knowledge**: Describe the effect on the CNS of other commonly used drugs with known CNS action, including: antihistamines, antidepressants, stimulants for attention deficit disorder, over-the-counter cold preparations, and tranquilizers.	Global Evaluation In-Training Exam