

**Elective Neurology Rotation Information (including Rotation Learning Outcomes,  
Instructional Objectives, Preceptor Evaluation of Student Form, and Rotation-Specific  
Curriculum Integration Table)**

**Instructor of Record for Elective Neurology Rotation:**

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**Elective Neurology Clinical Rotation Topics**

**Eyes, Ears, Nose, and Throat**

Eye disorders

Neuro-ophthalmologic disorders: Nystagmus, Optic neuritis, Papilledema

Vision abnormalities: Amaurosis fugax

Ear disorders

Inner ear: Acoustic neuroma, Vertigo

**Neurologic System**

Closed head injuries: Concussion, Post-concussion syndrome, Traumatic brain injury

Cranial nerve palsies

Encephalopathic disorders

Headaches: Cluster headache, Migraine, Tension headache

Infectious disorders: Encephalitis, Meningitis

Movement disorders: Essential tremor, Huntington disease, Parkinson disease, Tourette disorder

Neoplasms: Benign, Malignant

Neurocognitive disorders: Delirium, Major/mild neurocognitive disorders

Neuromuscular disorders: Cerebral palsy, Multiple sclerosis, Myasthenia gravis

Peripheral nerve disorders: Carpal tunnel syndrome, Complex regional pain syndrome, Guillain-Barré syndrome, Peripheral neuropathy

Seizure disorders: Focal seizure, Generalized seizures, Status epilepticus

Vascular disorders: Arteriovenous malformation, Cerebral aneurysm, Intracranial hemorrhage, Stroke, Syncope, Transient ischemic attack

**Neurology Rotation Learning Outcomes and Instructional Objectives**

**Upon completion of the Neurology clinical rotation,**

<b>Rotation Learning Outcomes</b>	<b>Instructional Objectives</b>
<b>Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Neurology Clinical Rotation Topics above) encountered in neurology.</b>	

	Neurology instructional objective: Explain the pathophysiology of the clinical presentations of conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Describe the etiology and epidemiology of the clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Distinguish normal aging from pathologic process. (MK-PLO3)
	Neurology instructional objective: Identify the patient presentation of conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Differentiate how disease processes of conditions listed in the Neurology Clinical Rotation Topics (above) may present. (MK-PLO3)
	Neurology instructional objective: Explain the appropriate diagnostic workup of the clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Formulate a differential diagnosis for patient presentations of conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Compare and contrast the risks and benefits of diagnostic studies and treatment plans for conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Summarize the indications and contraindications of procedures commonly used in the treatment of conditions listed in the Neurology Clinical Rotation Topics (above). (MK PLO-2)

	Neurology instructional objective: Compare and contrast the risks and benefits of procedures indicated for conditions listed in the Neurology Clinical Rotation Topics (above). (MK PLO-3)
	Neurology instructional objective: Outline the appropriate management of the clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Identify the common medication problems specific to neurology, including polypharmacy, potential toxic interactions of drugs, compliance issues, and the complexity of new medication prescribing. (MK-PLO3)
	Neurology instructional objective: Describe health promotion in relation to the management of the clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Describe disease prevention for clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO3)
	Neurology instructional objective: Identify national screening guidelines for the applicable clinical conditions listed in the Neurology Clinical Rotation Topics (above). (MK-PLO2)
	Neurology instructional objective: Recognize when it is appropriate to obtain informed consent.
	Neurology instructional objective: Describe major age-related changes in body composition and function that affect the pharmacokinetic process. (MK-PLO2)
	Neurology instructional objective: Discuss medications commonly used in the treatment of conditions listed in the Neurology Clinical Rotation Topics (above), including indications, contraindications, possible drug interactions, mechanism of action, most common side effects, need for laboratory

	monitoring, and appropriate dosages. (MK PLO-3)
	Neurology instructional objective: Interpret and apply healthcare guidelines for conditions listed in the Neurology Clinical Rotation Topics (see above). (MK PLO-3)
	Neurology instructional objective: Select appropriate prescription medication(s) and dosing for the treatment of conditions listed in the Neurology Clinical Rotation Topics (above). (MK PLO-3)
	Neurology instructional objective: Actively participate in the management patients. (MK- PLO3)
<b>Students will elicit a detailed and accurate patient history, perform an appropriate physical examination, appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Neurology Clinical Rotation Topics above) commonly encountered in patients seeking care in a neurology setting.</b>	
	Neurology instructional objective: Demonstrate an age-appropriate problem-focused history and physical exam for patients in a neurology setting. (PC PLO-1, PC-PLO-2)
	Neurology instructional objective: Select and interpret appropriate diagnostic and laboratory studies for conditions listed in the Neurology Clinical Rotation Topics (above) for patients in a neurology setting. (PC-PLO3)
	Neurology instructional objective: Formulate an appropriate differential diagnosis based on history, physical examination, diagnostic data, and clinical reasoning for patients in a neurology setting. (PC-PLO4)

	Neurology instructional objective: Develop an appropriate assessment, management care plan, and disposition of patients, given all pertinent medical data, including history, physical exam, laboratory, and diagnostic data in a neurology setting. (PC-PLO4)
	Neurology instructional objective: Actively participate in the management of patients with conditions listed in the Neurology Clinical Rotation Topics (above) in a neurology setting. (PC- PLO4)
<b>Students will document information clearly and appropriately in neurology.</b>	
	Neurology instructional objective: Document an acute problem-focused medical note for patients. (ICS-PLO2)
	Neurology instructional objective: Document a chronic problem-focused medical note for patients. (ICS-PLO2)
	Neurology instructional objective: Document information clearly and accurately at an appropriate level for patients, colleagues, and teachers. (ICS-PLO2)
	Neurology instructional objective: Document care plans for patients with multiple conditions, ensuring integration of comorbidities and prioritization of care needs." (ICS-PLO2)
	Neurology instructional objective: Document medical information in a manner that synthesizes large volumes of data and summarizes complex care plans, tailored to a neurology setting. (ICS-PLO2)
<b>Students will listen empathetically and effectively, communicate clearly, utilize shared decision-making, and provide patient education and patient counseling for patients seeking care in neurology.</b>	
	Neurology instructional objective: Utilize open-ended questions, active listening, and empathetic communication to elicit patient preferences, values, goals, and concerns while providing space for patients to fully

	articulate their thoughts without interruption. (ICS-PLO1)
	Neurology instructional objective: Communicate complex medical information clearly and comprehensively, using plain language and avoiding medical jargon, while tailoring the content and delivery to the patient's level of understanding and health literacy. (ICS-PLO3)
	Neurology instructional objective: Deliver clear, concise, and well-organized oral case presentations using a structured format, ensuring the inclusion of pertinent patient information to effectively communicate with preceptors and the healthcare team, fostering collaboration and continuity of care. (ICS-PLO3)
	Neurology instructional objective: Identify and address communication barriers with diverse patient populations and adapt communication style and information context to ensure understanding, effective interaction, and culturally sensitive care. (ICS PLO-3)
	Neurology instructional objective: Collaborate with the patient and family to identify realistic goals, develop a shared understanding of diagnoses and treatment options, and explain the risks and benefits of diagnostic studies and treatments, while demonstrating empathetic listening to clarify misconceptions and address concerns or fears. (ICS PLO-5)
	Neurology instructional objective: Deliver age-appropriate patient-centered education and counseling, including health promotion, disease prevention, and evidence-based written materials tailored to the patient's needs and health literacy, to patients seeking care in neurology. (ICS-PLO5)

	Neurology instructional objective: Provide patient-centered counseling that addresses emotional, psychological, and social concerns (ICS-PLO5)
	Neurology instructional objective: Assess patient understanding of medical information and treatment plans and address any gaps in comprehension (ICS-PLO3)
<b>Students will facilitate difficult health care conversations in neurology.</b>	
	Neurology instructional objective: Establish rapport and trust with patients and their family members by demonstrating empathy, active listening, and respect for their emotions, perspectives, and concerns while maintaining professionalism and objectivity. (ICS PLO-4)
	Neurology instructional objective: Create a supportive environment conducive to open and honest dialogue, ensuring that the patient and their family feel comfortable expressing their thoughts, emotions, and preferences. (ICS PLO-4)
	Neurology instructional objective: Demonstrate sensitivity and cultural competence in addressing sensitive topics, such as end-of-life care, advance directives, or difficult treatment decisions, while respecting diverse perspectives and values. (ICS PLO-4)
	Neurology instructional objective: Provide emotional support and connect patients and their families with appropriate resources to help them cope with difficult emotions and navigate the healthcare system effectively. (ICS PLO-4)
<b>Students will demonstrate compassion, integrity, respect, patient responsiveness, and accountability while providing care to patients in neurology.</b>	

	Neurology instructional objective: Demonstrate empathy, understanding, compassion, and sensitivity to the emotional, social, developmental, cultural, and diverse backgrounds of patients and their families, including age, gender, and disabilities. (P-PLO1)
	Neurology instructional objective: Respect patient confidentiality and privacy, ensuring that sensitive information is handled appropriately and securely. (P-PLO1)
	Neurology instructional objective: Use inclusive language and cultural sensitivity when interacting with patients and their families to foster trust and respect. (P-PLO1)
	Neurology instructional objective: Exhibit professionalism in interactions with patients, families, and healthcare team members, including maintaining appropriate dress, punctual attendance, and a professional attitude in all clinical settings. (P-PLO1)
	Neurology instructional objective: Prioritize patient care over personal comfort or preferences, demonstrating a willingness to adjust schedules or extend work hours to accommodate patient needs. (P-PLO2)
	Neurology instructional objective: Demonstrate flexibility, attentiveness, and responsiveness in addressing patient concerns and unexpected changes. (P-PLO2)
	Neurology instructional objective: Take accountability for actions, decisions, and the quality of care provided, ensuring continuous evaluation and improvement. (P-PLO3)
	Neurology instructional objective: Evaluate and integrate community resources to support patient care in neurology. (P PLO-3)



	Neurology instructional objective: Demonstrate motivation and desire to learn. (P PLO-3)
	Neurology instructional objective: Demonstrate knowledge of the legal and regulatory requirements of the role of a physician assistant. (P-PLO4)
	Neurology instructional objective: Exhibit integrity by adhering to ethical standards, acting with honesty, and maintaining professional accountability in all interactions and decisions." (P-PLO1)
<b>Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to neurology.</b>	
	Neurology instructional objective: Proactively seek feedback from their preceptor on clinical performance, communication skills, and professional behavior, demonstrating openness to constructive criticism and willingness to apply it to improve. (PBL PI-PLO1)
	Neurology instructional objective: Develop action plans based on feedback including specific goals and timelines for implementation. (PBL PI-PLO1)
	Neurology instructional objective: Recognize personal and professional limitations, and locate assistance from preceptors, colleagues, and reference materials to address areas needing improvement. (PBL PI-PLO1)
	Neurology instructional objective: Monitor progress towards goals over time, adjusting action plans as necessary based on ongoing reflection and feedback. (PBL PI PLO-2)
	Neurology instructional objective: Develop the ability to learn from practice. (PBL PI PLO-2)

	Neurology instructional objective: Demonstrate lifelong learning by interpreting independent readings, assessing medical evidence, and applying decision-making tools to provide evidence-based patient care in neurology. (PBL PI-PLO3)
	Neurology instructional objective: Recognize the importance of lifelong learning in the medical field. (PBL PI PLO-3)
	Neurology instructional objective: Assess and effectively communicate medical evidence to patients, colleagues, and healthcare teams to support shared decision-making and patient care. (PBL PI PLO-3)
	Neurology instructional objective: Utilize medical information technology to access and appraise online medical resources, enhance personal education, support clinical decision-making, and educate patients. (PBL PI PLO-3)
<b>In a neurology setting, students will (a) promote a safe environment, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions, (d) work effectively with other health professionals to provide collaborative, patient-centered care, (e) incorporate considerations of cost awareness and funding, and (g) describe basic health payment systems and practice models.</b>	
	Neurology instructional objective: Operate under the rules of HIPAA to preserve patient confidentiality in a neurology setting. (SBP PLO-1)
	Neurology instructional objective: Practice according to policy and procedures set forth by the health care facility. (SBP PLO-1)
	Neurology instructional objective: Identify barriers and challenges to implementing quality improvement initiatives in a

	neurology setting and propose strategies to overcome them. (SBP PLO-2)
	Neurology instructional objective: Discuss the appropriate use of controlled substances and statewide tracking systems to ensure ethical and legal patient care in a neurology setting. (SBP PLO-2)
	Neurology instructional objective: Encourage a culture of safety and collaboration within the healthcare team by promoting open communication, error reporting, mutual respect, and teamwork while providing patient-centered care in a neurology setting. (SBP-PLO3)
	Neurology instructional objective: Identify the steps of the referral process for patients and the roles of other healthcare professionals in the participation of your patient's care in a neurology setting. (SBP-PLO3)
	Neurology instructional objective: Employ a professional relationship with the preceptors and other healthcare team members in a neurology setting. (SBP-PLO4)
	Neurology instructional objective: Efficiently manage patient flow and clinic scheduling to optimize access to care and minimize wait times for patients seeking care in a neurology setting. (SBP-PLO5)
	Neurology instructional objective: Communicate effectively with administrative staff, medical assistants, and other members of the healthcare team to coordinate patient care activities and ensure smooth health care operations in a neurology setting. (SBP-PLO4, SBP-PLO5)
	Neurology instructional objective: Evaluate cost-effective healthcare resources that do not compromise the quality of care for patients in a neurology setting. (SBP PLO-6)

	Neurology instructional objective: Discuss treatment options for patient care in an unbiased manner, considering both clinical effectiveness and cost implications and involving patients in shared decision-making in a neurology setting. (SBP PLO-6)
	Neurology instructional objective: Describe common practice models in a neurology setting. (SBP PLO-6)
	Neurology instructional objective: Demonstrate an understanding of the roles and responsibilities of PAs and other healthcare professionals in a neurology setting, including their contributions to population health, care coordination, and cost reduction through preventive services and chronic disease management. (SBP PLO-6)
	Neurology instructional objective: Choose appropriate billing codes for payment services under the direct supervision of the preceptor in a neurology setting. (SBP-PLO7)
	Neurology instructional objective: Identify funding sources and payment systems, including eligible patient populations for Medicaid and Medicare, in a neurology setting (SBP-PLO7)

**Neurology Rotation Curriculum Integration Table**

<b>Rotation Learning Outcome</b>	<b>Assessment Method (Benchmark Requirements)</b>	<b>PAS Program Goal</b>	<b>PAS Program Learning Outcome (ARC-PA)/Student Learning Outcomes (GVSU)</b>
Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Neurology Clinical Rotation Topics above) encountered in neurology.	Preceptor Evaluation (80% average score on Medical Knowledge competency section)	Medical Knowledge and Competence in Patient Care	MK #2
			MK#3
Students will elicit a detailed and accurate patient history, perform an appropriate physical examination, appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Neurology Clinical Rotation Topics above) commonly encountered in patients seeking care in a neurology setting.	Preceptor Evaluation (80% average score on Patient Care competency section)	Medical Knowledge and Competence in Patient Care	PC #1
			PC #2
			PC #3
			PC #4
Students will document information clearly and appropriately in neurology.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS#2

Students will listen empathetically and effectively, communicate clearly, utilize shared decision-making, and provide patient education and patient counseling for patients seeking care in neurology.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS #1
		Collaborative Practice	ICS #3
			ICS #5
Students will facilitate difficult health care conversations in neurology.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Collaborative Practice	ICS #4
Students will demonstrate compassion, integrity, respect, patient responsiveness, and accountability while providing care to patients in neurology.	Preceptor Evaluation (80% average score on Professionalism competency section)	Professionalism	P #1
			P #2
			P #3
Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to neurology.	Preceptor Evaluation (80% average score on Practice-Based Learning and Proficiency Improvement competency section)	Lifelong Learning	PBLPI #1
			PBLPI #2
			PBLPI #3
In a neurology setting, students will (a) promote a safe environment, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions, (d) work effectively with other health professionals to provide collaborative, patient-centered care, (e) incorporate considerations of cost awareness and funding, and (g) describe basic health payment systems and practice models.	Preceptor Evaluation (80% average score on Systems-Based Practice competency section)	Medical Knowledge and Patient Care	SBP #1
			SBP #6
		Lifelong Learning	SBP #2
		Collaborative Practice	SBP #3
			SBP #4
			SBP #5
			SBP #7

## Neurology Preceptor Evaluation of the Student

What is your group and/or site name (i.e., Corewell Health Greenville Hospital Multispecialty Center - Oak St, Family Medicine)					
Medical Knowledge: This section evaluates the student's ability to demonstrate medical knowledge, clinical reasoning, and problem-solving ability of sufficient breadth and depth to practice medicine as an entry-level physician assistant					
	60% (Failing)	70%	80%	90%	100%
		(D+/ C-)	(C+/ B)	(B+/ A-)	(A)
Student demonstrated medical knowledge in pathophysiology, etiology, and epidemiology for patients seeking medical care for common conditions encountered in neurology (MK#2, 3)					
Student demonstrated medical knowledge of patient presentations for common conditions encountered in neurology (MK#2,3)					
Student demonstrated medical knowledge of differential diagnosis for patients seeking medical care for common conditions encountered in neurology (MK#2,3)					
Student demonstrated medical knowledge of the diagnostic work-up for patients seeking medical care for common conditions encountered in neurology (MK#2,3)					
Student demonstrated medical knowledge of patient management strategies for patients seeking medical care for common conditions encountered in neurology (MK#2,3)					
Student demonstrated medical knowledge of health promotion and disease prevention for patients seeking medical care for common conditions encountered in neurology (MK#2, 3)					
Additional Comments:					
Patient Care: This section evaluates the student's ability to provide person-centered care that includes patient- and setting-specific assessment, evaluation, management, and health promotion.					
	60% (Failing)	70%	80%	90%	100%
		(D+/ C-)	(C+/ B)	(B+/ A-)	(A)

Student elicited a detailed and accurate history for patients encountered in neurology (PC#1)					
Student performed an appropriate physical examination for patients encountered in neurology (PC#1)					
Student demonstrated knowledge of the appropriate use and interpretation of diagnostic testing for patients encountered in neurology (PC#3)					
Student demonstrated knowledge of the appropriate use and interpretation of laboratory studies for patients encountered in neurology (PC#3)					
Student organized information from the interview, diagnostic testing, and physical examination to formulate differential diagnoses for patients encountered in neurology (PC#4)					
Student organized information from the interview, diagnostic testing, and physical examination to formulate assessments for symptoms/conditions commonly encountered for patients encountered in neurology (PC#4)					
Student organized information from the interview, diagnostic testing, and physical examination to formulate management plans for symptoms/conditions commonly encountered for patients encountered in neurology (PC#4)					
Interpersonal and Communication Skills: This section evaluates the student's ability to demonstrate verbal and non-verbal communication skills needed to have respectful, compassionate, and effective conversations with patients, patients' families, and health professionals to exchange information and make medical decisions.					
	60% (Failing)	70% (D+/ C-)	80% (C+/ B)	90% (B+/ A-)	100% (A)
Student documented information clearly and appropriately for encounters in neurology (ICS#2)					
Student listened empathetically and effectively to patients seeking care in neurology (ICS#1)					
Student communicated information clearly in neurology (ICS#3)					
Student utilized shared decision-making for patients seeking care in neurology (ICS#5)					



Student provided patient education and counseling for patients seeking care in neurology (ICS#5)					
Student facilitated difficult health care conversations in neurology (ICS#4)					
Additional Comments:					
Professionalism: This section evaluates the student's ability to demonstrate commitment to carrying out professional responsibilities and adhering to ethical principles and practices in neurology.					
Student demonstrated compassion, integrity, and respect to patients seeking care in neurology (P#1)					
Student demonstrated patient responsiveness while providing care to patients in neurology (P#2)					
Student showed accountability while providing care to patients in neurology (P#3)					
Additional Comments:					
Practice-Based Learning and Proficiency Improvement: This section evaluates the student's ability to acquire, appraise, and apply evidence-based medicine to patient care and accurately assess and improve clinical performance based on constant self-evaluation and lifelong learning.					
	60% (Failing)	70%	80%	90%	100%
		(D+/ C-)	(C+/ B)	(B+/ A-)	(A)
Student sought, implemented, and accepted feedback related to neurology (PBLPI#1)					
Student reflected on their performance to identify strengths and deficiencies in their knowledge and expertise and develop a plan for self-improvement related to neurology (PBLPI#2)					
Student located, appraised, and integrated evidence-based studies related to neurology (PBLPI#3)					
Additional Comments:					
Systems-Based Practice: This section evaluates the student's ability to engage with other healthcare professionals in a manner that optimizes care within the context of the larger healthcare system.					
	60% (Failing)	70%	80%	90%	100%
		(D+/ C-)	(C+/ B)	(B+/ A-)	(A)

Student promoted a safe environment for patients seeking care in a neurology setting (SBP#1)					
Student demonstrated knowledge of quality improvement methodologies and metrics in a neurology setting (SBP#2)					
Student recognized the unique roles of PAs and those of other healthcare professions in a neurology setting (SBP#3)					
Student worked effectively with other health professionals to provide collaborative, patient-centered care in a neurology setting (SBP#4)					
Student worked effectively in a neurology setting (SBP#5)					
Student incorporated considerations of cost awareness and funding sources into patients seeking care in a neurology setting (SBP#6)					
Student described basic health payment systems and practice models for a neurology setting (SBP#7)					

Additional Comments:

Did the student have any absences during the rotation?

Yes

No

If yes, please indicate dates and reason for absence:

Please write a short note commenting on this student's particular strengths.

Please write a short note commenting on this student's particular areas for improvement.

Was this evaluation discussed with the student?

Yes

No

Additional comments

Preceptor Signature: