PGY-4 Rotations
Competency Based Goals and Objectives

The goals of the second year of the pediatric neurology residency program are to gain competency in the neurologic examination of infants and children, understand the principles of normal and abnormal development, plan appropriate diagnostic evaluations and subsequent therapy for children with common, rare, and serious neurologic disorders, become comfortable with the diagnosis and management of neurologic disorders in the intensive care unit, become experienced in the evaluation and management of premature and term infants with neurologic problems in the neonatal intensive care unit, develop expertise in providing neurologic consultation, become familiar with the principles of neurologic rehabilitation, gain outpatient exposure to multiple neurologic subspecialties, and develop competence in long-term outpatient management of neurologic disorders. Residents maintain a pediatric outpatient continuity clinic throughout the year. The objectives for each rotation completed during the second year are as follows:

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<th>12th Floor Neurology Service</th>
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<td><strong>Patient Care.</strong> Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.</td>
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</tbody>
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Objectives:
- Supervise care of all patients admitted to the neurology inpatient and neurorehabilitation services at St. Louis Children's Hospital
- Perform independent evaluations for neurologic complaints including obtaining accurate and specific history, performing comprehensive physical and neurologic examinations
- Integrate history and physical examination with medical knowledge for neurologic disorders to generate a differential diagnosis and plan
- Use evidence-based treatment guidelines to inform treatment decisions
- Review and evaluate all diagnostic testing for patients on the neurology service
- Assist with diagnostic procedures including lumbar punctures
- Provide timely, compassionate service and seek appropriate consultation and support in the evaluation and treatment of neurologic disorders

**Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological, and social-behavioral knowledge needed by a pediatric neurologist; demonstrate the ability to acquire, critically interpret, and apply this knowledge in patient care.

Objectives:
- Develop approach for evaluation of acute, severe, or debilitating neurologic problems requiring hospitalization
- Develop competence in interpretation of laboratory tests and imaging studies in the evaluation of pediatric patients admitted with neurologic complaints
- Attend weekly neurology conferences when clinical duties permit
Understand the interaction of neurologic diseases with other organ systems and with other medical illnesses.

Gain familiarity with the most current pathophysiological understanding of common neurologic disorders

**Interpersonal and Professional Communication.** Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, and professional associates.

Objectives:
- Provide clinical assessment of cases to faculty, using correct terminology and with explanation of rationale based on appraisal of available clinical, laboratory, neuroimaging data
- Interact in a collegial way with all members of the healthcare team with goal of providing optimal patient care
- Communicate effectively with patients and their families to obtain clinically relevant information and deliver diagnosis and treatment plan in an easily understood and culturally sensitive manner
- Maintain comprehensive, timely, and legible medical records
- Generate discharge summary at conclusion of hospital stay

**Professionalism.** Demonstrate a commitment to carry out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

Objectives:
- Be present and ready for rounds at the agreed time
- Admit errors or omissions and takes steps to correct them
- Protect patient privacy
- Demonstrate sensitivity to race, gender, ethnic background, religion, sexual orientation, and other social factors in dealing with patient care and interactions with other providers and other learners
- Treat colleagues at all levels with respect

**Practice-based Learning and Improvement.** Demonstrate knowledge, skills, and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

Objectives:
- Prioritize clinical responsibilities, provide timely service, and seek appropriate consultation and support when necessary
- Coordinate the teaching services and planning for the evaluation and care of all service patients under the direct supervision of the attending physician
- Formulate plans for diagnostic evaluation and treatment for each patient under the direction of the attending physician
- Attend and lead daily teaching rounds for the neurology inpatient service
- Integrate feedback from preliminary diagnostic errors to improve diagnostic accuracy
Identify strengths, deficiencies, and limits to knowledge and expertise
Access learning sources (textbooks, medical literature, online resources) to fill gaps in knowledge that are identified during case discussions
Participate in the education of students, residents, and other health care professionals

**Systems Based Practice.** Understand how to practice quality health care and advocate for patients within the context of the health care system.

Objectives:
- Understand the concepts of cost containment and cost effectiveness that may be employed on the general neurology service for the management of patients with neurological disorders
- Describe methods for ensuring the physician and the general neurology service use scare resources in a sound, thoughtful, and cost-effective manner

### Neurology Consult Service

**Patient Care.** Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

Objectives:
- Develop mastery of revaluation and management of neurologic complaints complicating medical and surgical inpatient illnesses
- Directly supervise and delegate responsibilities to various members of the neurology consult team, including rotating residents and students
- Perform independent evaluations for neurologic complaints including obtaining accurate and specific history, performing comprehensive physical and neurologic examinations
- Integrate history and physical examination with medical knowledge for neurologic disorders to generate a differential diagnosis and plan
- Integrate history and physical examination with medical knowledge for neurologic disorders to generate a differential diagnosis and plan
- Use evidence-based treatment guidelines to inform evaluation and treatment recommendations
- Review, and evaluate all diagnostic testing for patients on the neurology consult service
- Aid consulting services in performing diagnostic procedures including lumbar punctures

**Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological, and social-behavioral knowledge needed by a pediatric neurologist; demonstrate the ability to acquire, critically interpret, and apply this knowledge in patient care.

Objectives:
- Attend and participate in weekly neurology conferences when clinical duties permit
- Demonstrate an understanding of the basic science background of neurologic disorders and apply this knowledge to the clinical care of patients admitted with complicating medical or surgical conditions
- Develop approach for evaluation of medically ill patients who present with neurologic complaints
- Understand the interaction of neurologic diseases with other organ systems and with other medical illnesses.
• Gain familiarity with the most current pathophysiologic understanding of common neurologic disorders

**Interpersonal and Professional Communication.** Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, and professional associates.

**Objectives:**
• Develop effective communication skills with professionals from other areas of medical practice including pediatric medicine, general surgery, and surgical subspecialties
• Provide clinical assessment of cases to faculty, using correct terminology and with explanation of rationale based on appraisal of available clinical, laboratory, neuroimaging data
• Communicate and coordinate with community pediatricians and neurologist concerning requests for assistance with management of neurologic problems or further neurologic evaluation
• Demonstrate ability to serve as a consultant to colleagues and health care professionals
• Interact in a collegial way with all members of the healthcare team
• Communicate effectively with patients and their families to obtain clinically relevant information and deliver diagnosis and treatment plan in an easily understood and culturally sensitive manner
• Maintain comprehensive, timely, and legible medical records

**Professionalism.** Demonstrate a commitment to carry out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

**Objectives:**
• Be present and ready for rounds at the agreed time
• Admit errors or omissions and takes steps to correct them
• Protect patient privacy
• Demonstrate sensitivity to race, gender, ethnic background, religion, sexual orientation, and other social factors in dealing with patient care and interactions with other providers and other learners
• Treat colleagues at all levels with respect

**Practice-based Learning and Improvement.** Demonstrate knowledge, skills, and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

**Objectives:**
• Prioritize clinical responsibilities, provide timely service, and seek appropriate consultation and support when necessary
• Perform enhanced independent evaluations for neurologic complaints including obtaining complete history, performing examination, and formulating treatment plans in the setting of a consultative practice
• Teach physicians throughout the hospital appropriate responses and treatments for neurologic disorders.
Prioritize and organize consults so as to respond to the concerns of the consultants and to reassure that urgent problems are immediately evaluated and treated.

Integrate feedback from preliminary diagnostic errors to improve diagnostic accuracy.

Identify strengths, deficiencies, and limits to knowledge and expertise.

Access learning sources (textbooks, medical literature, online resources) to fill gaps in knowledge that are identified during case discussions.

Participate in the education of students, residents, and other health care professionals.

**Systems Based Practice.** Understand how to practice quality health care and advocate for patients within the context of the health care system.

**Objectives:**

- Understand the concepts of cost containment and cost effectiveness that may be employed on the general neurology service for the management of patients with neurological disorders.
- Describe methods for ensuring the physician and the neurology consult service use scarce resources in a sound, thoughtful, and cost-effective manner.

**Outpatient Clinics**

**Patient Care.** Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

**Objectives:**

- Actively participate in the evaluation and management of pediatric patients presenting to multiple subspecialty clinics at St. Louis Children’s Hospital including, epilepsy clinic, movement disorder clinic, cerebral palsy clinic, sleep clinic, neurofibromatosis clinic, tuberous sclerosis clinic, general neurology clinic, neonatal neurology clinic, neuromuscle clinic, headache clinic, neuroimmunology clinic, and autism clinic.
- Integrate history and physical examination with medical knowledge for neurologic disorders to generate a differential diagnosis and plan.
- Use evidence-based treatment guidelines to inform evaluation and treatment recommendations.

**Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological, and social-behavioral knowledge needed by a pediatric neurologist; demonstrate the ability to acquire, critically interpret, and apply this knowledge in patient care.

**Objectives:**

- Develop cutting edge fund of knowledge on appropriate outpatient evaluation and management of specialty neurological conditions including epilepsy, neuromuscular disease, cerebral palsy, movement disorders, neurocutaneous disorders, and headache.
- Attend and participate in weekly neurology conferences when clinical duties permit.
- Demonstrate an understanding of the basic science background of neurologic disorders and apply this knowledge to the clinical care of patients with various neurologic complaints.
- Gain familiarity with the most current pathophysiological understanding of common neurologic disorders.
- Participate in specialty education conferences

**Interpersonal and Professional Communication.** Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, and professional associates.

Objectives:
- Develop effective communication skills with professionals from other areas of medical practice
- Provide clinical assessment of cases to faculty, using correct terminology and with explanation of rationale based on appraisal of available clinical, laboratory, neuroimaging data
- Interact in a collegial way with all members of the healthcare team
- Communicate effectively with patients and their families to obtain clinically relevant information and deliver diagnosis and treatment plan in an easily understood and culturally sensitive manner
- Maintain comprehensive, timely, and legible medical records
- Demonstrate ability to serve as an outpatient consultant to colleagues and health care professionals

**Professionalism.** Demonstrate a commitment to carry out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

Objectives:
- Be present and ready for clinic
- Admit errors or omissions and takes steps to correct them
- Protect patient privacy
- Demonstrate sensitivity to race, gender, ethnic background, religion, sexual orientation, and other social factors in dealing with patient care and interactions with other providers and other learners
- Treat colleagues at all levels with respect

**Practice-based Learning and Improvement.** Demonstrate knowledge, skills, and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

Objectives:
- Develop experience in evaluation and management of various pediatric neurologic disorders
- Obtain initial neurologic history and perform initial physical and neurologic examination and assist in formulation of treatment plans for patients in each of the major specialty clinics under the direction of the attending physician
- Integrate feedback from preliminary diagnostic errors to improve diagnostic accuracy
- Identify strengths, deficiencies, and limits to knowledge and expertise
- Access learning sources (textbooks, medical literature, online resources) to fill gaps in knowledge that are identified during case discussions
- Participate in the education of students, residents, and other health care professionals
**Systems Based Practice.** Understand how to practice quality health care and advocate for patients within the context of the health care system.

Objectives:
- Understand the concepts of cost containment and cost effectiveness that may be employed in outpatient neurology clinic for the management of patients with neurological disorders
- Describe methods for ensuring the physician and the pediatric neurology division use scarce resources in a sound, thoughtful, and cost-effective manner

### Neonatal Neurology Service

**Patient Care.** Provide family centered patient care that is developmentally and age appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

Objectives:
- Perform an accurate and specific history and physical examination on NICU patients for recognition of neurologic disorders
- Integrate history and physical examination with medical knowledge for neonatal neurologic disorders to generate a differential diagnosis and plan
- Use evidence-based treatment guidelines to inform treatment decisions
- Provide timely, compassionate service and seek appropriate consultation and support in the evaluation and treatment of psychiatric disorders

**Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological, and social-behavioral knowledge needed by a pediatric neurologist; demonstrate the ability to acquire, critically interpret, and apply this knowledge in patient care.

Objectives:
- Understand current concepts of therapy including pharmacologic (mechanism of action, drug-interaction, side effects) and non-pharmacologic interventions for the management of the neonate or infant with neurologic disease
- Develop appropriate diagnostic and management strategies for common neurologic diagnoses in the NICU, including arterial cerebral infarction, venous cerebral infarction, venous sinus thrombosis, seizures, meningitis, encephalopathy, intraventricular hemorrhage with/without hydrocephalus, hypotonia and congenital cerebral malformations
- Understand indications for initiation of neuroprotective therapies for neurologic conditions in the NICU
- Develop basic interpretation of neuroimaging studies commonly obtained in the neonatal patient, including brain MRI and head ultrasound
- Understand the basic principles of neonatal EEG and aEEG interpretation
- Gain familiarity with the most current pathophysiological understanding of common neonatal neurologic disorders
- Demonstrate an ability to explain and examine the interaction of neurologic disease with other organ systems.
Interpersonal and Professional Communication. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, and professional associates.

Objectives:
- Provide clinical assessment of cases to faculty, using correct terminology and with explanation of rationale based on appraisal of available clinical, laboratory, neuroimaging data
- Interact in a collegial way with staff, including nurses, nurse practitioners, lab technicians, radiology technologists, therapists, and social workers, with goal of providing optimal patient care
- Communicate effectively with patients and their families to obtain clinically relevant information and deliver diagnosis and treatment plan in an easily understood and culturally sensitive manner
- Maintain comprehensive, timely, and legible medical records
- Communicate effectively with consulting colleagues and health care professionals

Professionalism. Demonstrate a commitment to carry out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

Objectives:
- Be present and ready for rounds at the agreed time
- Admit errors or omissions and takes steps to correct them
- Protect patient privacy
- Demonstrate sensitivity to race, gender, ethnic background, religion, sexual orientation, and other social factors in dealing with patient care and interactions with other providers and other learners
- Treat colleagues at all levels with respect

Practice-based Learning and Improvement. Demonstrate knowledge, skills, and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

Objectives:
- Attend and participate in daily work rounds and family meetings in the NICU
- Attend and participate in weekly Neonatal Neurology follow-up clinics
- Perform examinations and develop diagnostic and therapeutic plans under the supervision of a neonatal neurology fellow and attending physician
- Prioritize clinical responsibilities, provide timely service, and seek appropriate consultation and support when necessary
- Integrate feedback from preliminary diagnostic errors to improve diagnostic accuracy
- Identify strengths, deficiencies, and limits to knowledge and expertise
- Access learning sources (textbooks, medical literature, online resources) to fill gaps in knowledge that are identified during case discussions
- Participate in the education of students, residents, and other health care professionals
- Attend neuroimaging interpretation sessions in coordination with the neuroradiology service
Systems Based Practice. Understand how to practice quality health care and advocate for patients within the context of the health care system.

Objectives:
- Understand the concepts of cost containment and cost effectiveness that may be employed on the NICU for the management of patients with neurological disorders
- Describe methods for ensuring the physician and Neonatal Neurology Service use scarce resources in a sound, thoughtful, and cost-effective manner