

Johns Hopkins Hospital Fellowship Program: Endovascular Surgical Neuroradiology

Program Director: Philippe Gailloud M.D.

Contact: Amber Jones

Address: Department of Radiology, Division of Interventional Neuroradiology
600 North Wolfe Street
Nelson B-100
Baltimore, Maryland 21287

Telephone: (410) 955-8525

FAX: (410) 502-6044

E-Mail: ajones78@jhmi.edu

ACGME Accreditation: #4222331006

Teaching Faculty

Philippe Gailloud, M.D.
ESN Faculty: Dheeraj Gandhi MD
Sudhir Kathuria MD

Program Overview

1. GOALS AND OBJECTIVES OF THE FELLOWSHIP PROGRAM – JOHNS HOPKINS HOSPITAL

1.1. Goals:

- a) The Endovascular Surgical Neuroradiology (ESN) fellowship program will provide fellows with an organized, comprehensive, supervised, full-time educational experience in endovascular surgical neuroradiology.
- b) The ESN program will ensure fellows are fully trained in the care and management of patients with neurovascular disorders, such as cerebral aneurysms, vascular malformations, and stroke.
- c) Fellows in the ESN program will be given the opportunity to perform endovascular surgical neuroradiology procedures under close guidance, with active participation carefully tailored to their learning curve and growing technical ability.
- d) The ESN fellowship program focuses on the integrating endovascular surgical neuroradiology techniques into the comprehensive clinical management of patients.
- e) The ESN program emphasizes the need for a tight collaboration between various subspecialties, including neurological surgery, neurology, and ophthalmology, in order to offer optimal management options in an environment that relies heavily on multimodality and collegiality.

1.2. Objectives:

The ESN program will train fellows in the following objectives; by the end of the fellowship program fellows will be competent in the following objectives:

Patient Care:

- a) ESN fellows will be instructed in the respective risks and benefits of the procedures they perform, and will initially observe consent processes led by attending physicians.
- b) ESN fellows will be encouraged to actively interact with patients and relatives in the presence of an attending physician.
- c) ESN fellows will be able to provide patients and their relatives with clear and honest information about diseases and treatments, and obtain informed consent in an informative, ethical, and respectful way.
- d) As the ESN fellow's ability to lead a consent process and family conferences independently is adequate, they will perform these duties autonomously. The presence of an attending physician during at least part of the consent process remains, however, mandatory.

Medical Knowledge:

- a) ESN fellows will be trained to:
 - adequately interpret relevant imaging studies
 - evaluate indications for neuroendovascular therapy
 - establish a treatment plan for neurovascular conditions commonly encountered in clinical practice
- b) ESN fellows will be trained to perform the following procedures independently:
 - diagnostic cerebral and spinal angiography
 - superselective intracranial microcatheterization
 - intra-arterial drug administration (such as tPA)
 - embolization of head and neck lesions (such as vascular malformations or tumors, hemorrhages)
 - embolization of spine tumors prior to surgery
 - percutaneous vertebroplasty
- c) ESN fellows will be exposed to and gain experience with the following procedures (with a degree of involvement based on previous experience and individual skill development):
 - embolization of intracranial lesions (such as aneurysm coiling)
 - extracranial angioplasty and stenting
 - neurovascular embolization with liquid embolic agents
 - embolization of spinal vascular malformations
 - intracranial angioplasty and stenting
- d) ESN fellows will be expected to attend:
 - ESN posted journal club meetings
 - the Interventional Neuroradiology hosted weekly Neurovascular conference
 - morning work rounds
 - attending rounds
 - Grand Rounds

- their choice of national conventions/conferences, such as SIR

Communication:

a) ESN fellows should be able to discuss treatment indications and plans with referring physicians. This requirement implies a basic understanding of common therapeutic alternatives that will be gained through daily interactions with physicians from other subspecialties, as well as from weekly multidisciplinary neurovascular case conferences.

b) Close guidance of ESN fellows at every stage of patient management will be provided. The fellow's degree of autonomy will be progressively increased as they build their ability to run the service independently, based on individual skills and progress.

c) The ESN learning process and skill building will be discussed informally on a daily basis after completion of the clinical duties, and reviewed every 3 months during formal evaluation.

d) Throughout the ESN program, a table of the catalog of objectives is reviewed during every fellow evaluation, so as to help document the rate and areas of progress, and identify specific needs of every fellow.

Professionalism:

a) The ESN fellow is expected to communicate to patients with compassion, integrity and respect, regardless of race, or social or economic background.

b) The ESN fellow is expected to respect the contributions of other members of the program, teaching staff and other health care team members the fellow may come into contact with.

c) The ESN fellow will be expected to perform any leadership roles, or actively participate in challenging circumstances with an open and positive attitude.

Practice-based Learning and Improvement:

a) ESN fellows will be trained to:

- understand the basic layout and functioning of an angiography suite
- be familiar with standard radiographic projections
- understand and apply basic principles of radioprotection techniques.

The ESN program will ensure that these goals are met during the daily clinical practice.

Systems Based Practice:

a) ESN fellows will be trained to understand and describe the functioning of commonly used endovascular devices, such as diagnostic catheters and wires, flow-guided and over-the-wire microcatheters, microwires, inflatable balloons, balloon-expandable and self-expandable stents, detachable and pushable microcoils, liquid and particulate embolic agents.

b) The ESN fellowship program will ensure that these goals are attained progressively during clinical practice, starting with simple devices such as diagnostic catheters and wires, and progressively including more complex devices. Initial experience with new devices is provided with the help of anatomic flow models allowing the fellows to familiarize themselves with the equipment in a non-clinical setting.

c) For all procedures, ESN fellows will be progressively instructed in the adequate manipulation and utilization of the devices necessary to the safe and efficient performing of the procedure. As mentioned, initial bench flow model training will be provided when necessary.

d) The degree of involvement and autonomy of the ESN fellow will be adapted to individual skills and progresses.

e) The goal of the ESN program is to have the fellow perform safely and independently all of the procedures listed above at the end of the fellowship period.

Additional Information

Positions Offered: 2

Duration: 12 months
