GOALS AND OBJECTIVES FOR PGY5 CARDIOTHORACIC SURGERY RESIDENT ON THE VASCULAR/ENDOVASCULAR SURGERY SERVICE

Description:
Residents will spend 6 months on the HUP Vascular Surgery Endovascular service. The endovascular rotation will afford our residents training in advanced catheter and guidewire skills, performance in diagnostic arteriography, angioplasty and stenting, and selection and treatment of appropriate patients with abdominal or descending thoracic aortic aneurysms for endovascular stent-graft repair.

(1) Medical Knowledge
1. Anatomy, physiology, embryology and pathology of the thoracic and abdominal aorta, great vessels, and peripheral vascular system.
2. The pharmacology, indications for and the complications of drugs commonly employed for endovascular disease management.
3. The natural history of treated and untreated diseases of the vascular system.
4. The principles of preoperative assessment, anesthetic management, and postoperative management of patients undergoing endovascular interventions.
5. Surgical diseases of the aorta, carotid, and cerebral vessels.
6. Atherosclerosis, aneurysm, dissection, vascular trauma, and tumors.
7. Principles of hemostasis as they apply to vascular and endovascular disease management.
8. The technology, interpretation, and complications of invasive and noninvasive diagnostic methods, including angiography, CT and MRI scanning, and ultrasonography.
10. The principles of vascular trauma.
11. Arterial access, catheter, guide wire, and endovascular device-based management of occlusive and aneurysmal vascular diseases as they apply to the management of thoracic aortic and arterial disorders.
12. Fluoroscopic imaging techniques using both portable and fixed imaging equipment.
14. Endovascular device design, handling and inventory management.

(2) Clinical Skills
1. Take a relevant history.
2. Perform an acceptable physical exam concentrating on the relevant areas.
3. Arrive at an appropriate differential diagnosis.
4. Order appropriate laboratory, radiological and other diagnostic procedures demonstrating knowledge in the interpretation of these investigations, especially in angiography, CT and MRI scan, and ultrasonography.
5. Arrive at an acceptable plan of management, demonstrating knowledge in the operative and the nonoperative management of the disease process.
6. Assess patients in the ambulatory setting and be able to perform the initial interview and assessment of the patient who has been referred for thoracic vascular disease management.
7. Manage the patient throughout the hospital stay, including management in an intensive care setting, demonstrating knowledge and ability to anticipate, recognize, and manage potential complications of the disease processes and operative procedures.
8. Provide a plan for patient follow-up.

(3) Patient Care
1. Management of endovascular patients in the preoperatively, postoperative, and critical care settings.
2. Assisting in the performance of endovascular procedures in the operating theater or cath/angio suites either as operator, first or second assistant, demonstrating an ability to recognize and anticipate the sequential steps of essential procedures, to take direction or criticism, to make reasonable suggestions, and to contribute to a positive operating room atmosphere.
3. Handling tissues and surgical instruments in an appropriate manner.
4. Demonstrating adherence to sterile technique.
5. Femoral, iliac and brachial exposure and repair strategies.
6. Satisfactory performance of basic endovascular procedures such as cannulation of the aorta, aortography, deployment of thoracic aortic endografts, stents, and angioplasty balloons, embolization coils, percutaneous closure devices, infusion catheters, and embolization filters.
7. Familiarity with wire skills, advancement of wires and location on fluoroscopy.
8. Fluoroscopy skills including diagnostic angiography of major and peripheral vessels.

(4) Professionalism
1. The ability to communicate effectively with patients, their families and other members of the health care team.
2. The ability to be honest, reliable and respectful of the religious, racial and gender characteristics of patients, their families and other members of the health care team.
3. The ability to understand the psychological needs of the patient facing potentially life threatening disease and surgery.
4. The ability to give and receive advice in a manner that is consistent with the harmonious operation of a health care team.
5. An awareness of the medico-legal aspects of endovascular surgery.
6. An appreciation of the ethical aspects of endovascular surgery.
7. An understanding of the obligation of continuing self-education and of teaching others.
8. The ability to keep succinct, pertinent and current medical records.
9. The ability to recognize when to seek assistance from more experienced colleagues.
10. The ability to appreciate the importance of acquiring and maintaining an appropriate professional attitude in order to practice in any specialty.

(5) Interpersonal and Communication Skills
1. Establish therapeutic relationships with patients and families.
2. Obtain and synthesize relevant history from patients and families, and their communities.
3. Listen effectively.
4. Discuss appropriate information with patients and families, and the health care team.
5. Obtain and synthesize relevant history from patients and family.
6. Inform patients and families about their condition at an appropriate and understandable level.
7. Be sensitive and respond appropriately to issues of gender, culture, and ethnicity in dealing with patients and families.
8. Write clear consultation note/discharge summary/clinic note.
9. Prepare and present ward and ICU rounds in an organized manner.
10. Participate actively in scheduled rounds.

(6) Systems-based Practice
1. Utilize resources effectively to balance patient care, learning needs and outside activities.
2. Allocate finite health care resources wisely.
3. Understand the importance and mechanisms to safely utilize resources in a cost-effective manner to benefit all patients.

(7) Practice-Based Learning and Improvement
1. Develop, implement and monitor a personal continuing education strategy.
2. Critically appraise sources of medical information.
3. Facilitate learning of patients, housestaff/students and other health professionals.
4. Contribute to development of new knowledge.
5. Recognize gaps in knowledge and develop strategies to correct this by self-directed reading, and consulting with other professionals.
6. Contribute knowledge learned to service rounds.
7. Understand principles and practice of basic and applied research including the scientific method, design and conduct of clinical trials, critical appraisal of literature and the use of statistics.
8. Understand the need to incorporate gender, cultural, and ethnic perspectives in research methodology.
9. Read around clinical cases.
10. Prepare and present scheduled rounds.
11. Participate actively in scheduled morbidity and mortality conferences.
12. Actively participate in journal club.
13. Prepare and present clinical research papers.
14. Participate effectively in teaching fellow professionals including junior housestaff.

Method of assessment of resident academic performance
1. End of rotation online evaluation
2. Yearly in-service training exam.
3. Bi-annual case log review