College of Medicine
Vascular Diseases and Surgery
Residency Manual
2016 – 2017
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I. OVERVIEW

A. General Information
The Department of Surgery at The Ohio State University Wexner Medical Center offers a two-year ACGME-accredited residency in Vascular Surgery. The program is based at The Ohio State University Wexner Medical Center, Ross Heart Hospital, University East Hospital, Arthur G. James Cancer Hospital & Richard J. Solove Research Institute, and Nationwide Children’s Hospital, the primary teaching facilities of The Ohio State University College of Medicine.

Vascular Surgery is the surgical specialty involving diseases of the arterial, venous and lymphatic circulatory systems, exclusive of those circulatory vessels intrinsic to the heart and intracranial vessels. Specialist in this discipline must demonstrate not only the knowledge, skills and understanding of the medical science relative to the vascular system, but also the acquisition of mature technical skills and surgical judgment.

Institutions sponsoring graduate educational programs in Vascular Surgery must provide the educational, clinical and administrative resources to allow residents to develop advanced proficiency in the management of critically ill surgical patients, to develop the qualifications necessary to supervise vascular surgery clinical care, and to conduct scholarly activities in vascular surgery. The educational program must be an integral part of and enhance an accredited core program in general surgery.

A subspecialty educational program in Vascular Surgery is in addition to the requirements for general surgical education set forth in the program requirements for these core programs. Residents who enter the program must have completed a categorical general surgery residency prior to entering the residency.

B. Duration
The length of the educational program is 24 months. These 24 months must be devoted to advanced educational and clinical activities related to the care of vascular surgery patients. One vascular resident position is available each year.

C. Curriculum
The curriculum provides advanced clinical training in all aspects of vascular surgery and enables the resident to acquire an advanced body of knowledge and level of skill in the management of vascular surgical patients in order to assume a leadership role in teaching and in research in vascular surgery.

To prepare physicians to function as well-qualified, independent specialists in Vascular Surgery, the physicians here are committed to the education of Vascular Surgery residents in basic science and clinical surgery as it relates to the vascular surgery specialty. We hope to instill in our trainees the essential elements of success for a career in Vascular Surgery including honesty and integrity, objectivity, self-motivation, curiosity, timeliness, a sense of responsibility, and a commitment to excellence.

Implicit in the educational goals of our program is the successful acquisition of the six general competencies adopted by the Accreditation Council for Graduate Medical Education (ACGME):

1. **Patient Care** (PC) that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

2. **Medical Knowledge** (MK) about established and evolving biomedical, clinical, and cognitive (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

3. **Practice-Based Learning and Improvement** (PBL) that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and
improvements in patient care.

4. **Interpersonal and Communication Skills** (ICS) that result in effective information exchange and teaming with patients, their families and other health professionals.

5. **Professionalism** (P) as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population.

6. **Systems-Based Practice** (SBP) as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

For more information about the ACGME Outcomes Project and the six competencies go to: http://www.acgme.org/Outcome/

**D. Goals**
To achieve the general educational goals, the following specific curriculum goals have been established:

- Provide learning experiences based on measurable objectives for education of vascular surgeons during their residency;
- Integrate principles of basic sciences with clinical experiences;
- Promote a broad understanding of the role of vascular surgery and its interaction with other medical disciplines;
- Provide for progressive responsibility from initial patient care to complete management including surgical procedures as required by the American Board of Surgery;
- Provide Vascular Surgery residents with the ability to function as teachers and consultants;
- Acquire in-depth diagnostic and therapeutic skills through extensive exposure to patients who present with a broad spectrum of common and complex vascular disorders;
- Participate and direct the preoperative assessment, operative management, and postoperative care of patients on the Vascular Service in cooperation with the designated attending;
- Promote learning from the residents’ patient care practices, including appraisal of outcomes of treatment as it relates to benchmark scientific evidence;
- Gain experience in the non-invasive laboratory diagnosis of vascular disease;
- Gain experience with diagnostic and intra-operative imaging techniques as well as detailed interpretation of imaging studies;
- Train and become proficient in catheter and guidewire skills;
- Perform diagnostic arteriography with the ability to selectively cannulate secondary and tertiary branches. This includes not only the lower extremity circulation but also the visceral circulation and brachiocephalic circulation;
• Perform a variety of peripheral interventions including PTA, stenting, athrectomy and lysis procedures;

• Gain proficiency with intravascular ultrasound for diagnostic and therapeutic procedures;

• The resident will become proficient in the repair of abdominal and thoracic aneurysm using a variety of devices;

• Develop professional leadership and management skills including involvement in systems-based patient care assessment and process improvement;

• Promote the understanding of the ethical, socioeconomic, cost-containment and medical-legal issues as they pertain to Vascular Surgery;

• Actively pursue research in an environment of inquiry and scholarship, with the goal being presentation at regional or national conference;

Residents completing the Vascular Surgery program will be expected to teach the specialty of vascular surgery, undertake investigations into the various areas of vascular surgical care, appoint, educate, and supervise specialized personnel and coordinate the activities of the vascular unit with other clinical units within the hospital. Overall educational goals for the resident and program are distributed to the physicians and residents annually for review.

E. Facilities

The Ohio State's Wexner Medical Center is a tertiary-care center serving a wide geographic area with a large population. Each year, nearly 24,000 operations encompassing all disciplines of surgery are performed. The Program Director oversees and ensures the quality of didactic and clinical education in all of the sites that the program participates in.

The Vascular Surgery unit at Ohio State is located in the Ross Heart Hospital, a 150 bed, state-of-the-art facility that houses the 30 bed vascular unit. Vascular patients are admitted to the 5th floor vascular unit with overflow into the other floors of the Ross and University Hospital.

Access to angiographic equipment is available in both the cardiac catheterization lab and operating rooms of the Ross Heart Hospital. The Ross Heart Hospital utilizes the universal bed concept of care so all levels of acute care are available.

Our local outpatient clinic facilities are located in the Ross Heart Hospital (inmates only), our Knightsbridge arterial vascular clinic and Vein Solution clinic (venous) at Knightsbridge. Some physicians travel to outer-lying clinics located in Bellefontaine, Marysville, Washington Court House, Upper Sandusky, and Ashland. The vascular resident is given the opportunity for clinical and/or surgical experience daily with individual physicians. It is expected that the vascular resident will attend a full day vascular clinic every week.

The institution provides residents with experience in interpretations of non-invasive vascular laboratory testing in an accredited vascular laboratory facilities. The Ross Heart Hospital and The Ohio State University Wexner Medical Center offers opportunities for the vascular resident to receive hands on experience in performing the testing, interpretation and receiving instruction from the Director of the Vascular Lab as well as from individual physicians. We are currently dedicating a full day, every other Wednesday, for vascular resident to perform vascular lab learning and research. Our division also has a vascular lab facility located at our Knightsbridge office as well as University Hospital East.

There are two clinical case managers assigned to work with the Division of Vascular Diseases and Surgery. One works strictly with in-patient care of our patients (facilitates patient admissions,
discharges and patient care planning across the continuum of care) and the other with all outpatient patient needs, as well as reviews all pre-admission testing for all procedures scheduled.

A research coordinator is also employed by the division to coordinate sponsored research projects and clinical trials. The research coordinator also assists with data entry into the division’s patient database.

The division employs a resident coordinator who assists the Program Director in overseeing the career needs of the residents. The coordinator keeps records of all the measures of assessing the vascular resident’s progress during the vascular residency program. The coordinator assists the resident in office requirements as well as arrangements needed for educational courses and materials, access to computer software, credentialing etc.

The vascular resident is provided with office space and computer access to support his/her ability to access the electronic medical records available to provide care to inpatients and outpatients at OSU Wexner Medical Center. A pager and cellular phone are also provided to facilitate communication abilities.

II. DELINEATION OF PHYSICIANS RESPONSIBILITIES

A. General
The physician must:

- devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities, demonstrate a strong interest in the education of residents, and support the goals and objectives of the educational program;

- administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas;

- have current certification in the specialty by the American Board of Surgery, or possess qualifications judged acceptable to the RRC;

- current medical licensure and appropriate medical staff appointment; (the terms of appointment for physician members must be at least three years);

- non-physician physicians must have appropriate qualifications in their field and hold appropriate institutional appointments.

- establish and maintain an environment of inquiry and scholarship with an active research component, and offer guidance and technical support for residents involved in research such as research design and statistical analysis;

- regularly participate in organized didactic schedule: clinical discussions, rounds, journal clubs, and conferences;

- encourage and support residents in scholarly activities;

- Faculty should also demonstrate scholarship by one or more of the following: peer-reviewed funding, publication of original research or review articles in peer-reviewed journals, or chapters in textbooks; publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; participation in national committees or educational organizations. Clinical and/or basic sciences research must be ongoing in the program and be performed by the physicians with frequent, direct resident involvement;
• members of the faculty must reflect sufficient diversity of interest to represent the many facets of vascular surgery;

• abide by the agreed-to-duties and responsibilities in the Medical Staff Agreement;

• abide by the policies and bylaws of The Ohio State University Hospitals, James Cancer Hospital and Solove Research Institute, Nationwide Children's Hospital and other institutions at which they interact and supervise residents in surgery;

• provide supervision of the residents pre-operative, operative, and post-operative care consistent with the hospital rules and regulations;

• be present for the essential and key elements of all surgical procedures;

• review all patient care decisions with the residents;

• review progress notes, operative notes, and discharge summaries prepared by the residents;

• see consultations as soon as possible;

• participate in assigned departmental and institutional committees;

B. Supervision of Vascular Resident

The attending physician has both an ethical and a legal responsibility for the overall care of the individual patient and for the supervision of the resident involved in the care of the patient. Although vascular residents may require less direction than more junior residents, even the most senior must be supervised. A chain of command that emphasizes graded authority and increasing responsibility as experience is gained must be established. Judgments on this delegation of responsibility shall be based on the individual attending’s direct observation and knowledge of each resident’s skill. (ACGME Program Requirement)

The attending physician is responsible for supervising both operative procedures and patient care. In circumstances when decisions and patient treatment are to be administered by the vascular resident in the absence of the attending physician, such as may occur at night or on weekends, the attending physician must be notified of all decisions and treatments in a timely fashion to be determined by the vascular resident based on the circumstances of the case. If deemed necessary by the vascular resident, notification should occur prior to implementation of the treatment unless delay would have a negative impact on the anticipated patient care outcome. The supervisory role can only take place when the attending physician in the division is notified of the patient’s condition, admission, or consultation in the hospital or emergency department. It is the responsibility of the vascular resident to notify the attending under all of the above situations and any other situation that may necessitate supervision by the attending, when he or she is not immediately available.

The level of responsibility given to any resident for the care of patients depends on the resident’s competence, medical knowledge, clinical skill, experience, and the complexity of the patient’s illness and the risk of any procedures that residents perform.

Although senior residents require less direction than junior residents, even the most senior must be supervised. Members of the teaching staff are always immediately available for consultation and support. On-call schedules for teaching staff are structured to ensure that supervision is readily available to residents on duty. A rapid and reliable communication system between residents and supervising teaching staff will be provided at all times.
Classification of Supervision:
**Direct Supervision** – the supervising physician is physically present with the resident and patient
**Indirect Supervision** – with direct supervision immediately available - the supervision physician is physically within the hospital or other side of patient care, and is immediately available to provide direct supervision; with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephone and/or electronic modalities, and is available to provide direct supervision.
**Oversight** – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

C. Educational Effectiveness of the Program
Physicians must meet annually in a formal documented meeting to review the effectiveness of the program. Representative personnel (i.e., the Program Director, representative physician, at least one resident, and the Program Coordinator) must meet annually to review program goals and objectives and the effectiveness with which they are achieved. The group must take into consideration written comments from the physician, the most recent report of the GMEC of the sponsoring institution, and the residents' confidential written evaluations. For any deficiencies found, the group should prepare an explicit plan of action (improvement plan), which is approved by the physician and documented in the minutes of the meeting.

Resident performance and outcome assessment will be used in the evaluation of the educational effectiveness of the residency program, including certification examinations and other program evaluation results.

III. DELINEATION OF VASCULAR RESIDENT ROLES AND RESPONSIBILITIES

A. General
The Vascular Resident agrees to:
- abide by the agreed-to duties and responsibilities in the Limited Medical Staff Agreement;
- abide by the Medical Staff Bylaws of The Ohio State University Hospitals, James Cancer Hospital and Solove Research Institute, Nationwide Children’s Hospital and other institutions in which the resident rotates;
- receive prior approval from the Program Director of any vacation time, changes in vacation, meetings, and any necessary unscheduled ill time;
- participate in safe, compassionate patient care under supervision commensurate with level of advancement and responsibility;
- be rested and alert in the performance of duties;
- participate in the educational activities of the Department of Surgery and the Division of Vascular Diseases & Surgery;
- spend one full-day per week in patient clinics seeing patients pre-operatively and post-operatively to provide experience in continuity of patient care;
- assume responsibility for teaching and supervising students and junior residents;
- participate, as assigned in departmental and institutional committees related to governance of the residency, patient care review activities, and as otherwise assigned by the hospital or program director;
• apply cost containment measures in the provision of patient care by including the Case Managers in on daily rounds and care planning for the vascular patient;

• oversee and delegate documentation of chart daily progress notes and discharge summaries; complete operative notes within 24 hours of completion of the surgery. These activities will be monitored and failure to attain 90% completion will be noted and used to determine advancement/graduation;

• adhere to policies regarding patient history and physical examinations and patient care;

• keep an accurate and current operative log and vascular lab interpretation log;

• abide by resident responsibilities as determined by the physicians;

• see the patient pre-operatively and post-operatively and communicate with the health team members the plan of care for each patient;

The resident experience will include:
  • primary responsibility for continuity of patient care, including ambulatory care, inpatient care, referral and consultation, and utilization of community resources
  • progressive senior surgical responsibilities in the total care of vascular surgery patients, including pre-operative evaluation, therapeutic decision-making, operative experience, and post-operative management
  • participate in providing consultation with physician member supervision, residents will have clearly defined educational responsibilities for other residents, medical students and professional personnel; these teaching experiences will correlate basic biomedical knowledge with the clinical aspects of vascular surgery
  • experience in the application, assessment and limitations of non-invasive vascular diagnostic techniques, the program will provide didactic and clinical training regarding non-invasive vascular diagnostic testing and interpretation
  • experience as a teaching assistants, when operative experience justifies a teaching role, will be provided.

B. Documentation of Clinical Experiences
Residents must enter and maintain an accurate operative log while in the vascular residency program. This log is maintained on Web ADS on the ACGME website. The Certificate of Completion will not be released to the graduating resident until satisfactory completion of this requirement. Residents are expected to enter their cases on a daily basis. Residents also need to enter vascular lab interpretations into Web ADS on the ACGME website. Operative logs and vascular lab interpretation logs are reviewed monthly by the Program Director. Resident should perform a minimum of 250 major vascular reconstructive procedures that reflect an adequate representation of current trends as well as a breadth and balance of experience in the surgical care of vascular diseases. Operative experience in excess of 900 total cases must be justified by the program director.

C. Resident Responsibilities for Patient Care
Resident training in Vascular Surgery is a progressive educational experience that entails a complex interaction of learning through patient care. Vascular residency training requires maintenance of a balance between the educational and the patient care responsibilities. In order to maintain the educational purpose of the training program residents are expected to attend all teaching conferences. Residents are excused from elective clinical responsibilities including presence in the operating room during scheduled educational conferences. Residents are assigned progressive responsibility for patient care by the supervising attending physician and the Program Director based on physician evaluations of clinical competence including patient care, medical knowledge, evidence of practice based learning and improvement, interpersonal
and communication skills, professionalism, and the resident’s demonstrated awareness of the systems–based practice of medicine. Promotion/graduation to progressive patient care responsibilities requires satisfactory completion of the training objectives specific for each training year/level as assessed by the physicians.

The vascular resident is expected to fully integrate all of his/her clinical skills and knowledge and is the person charged with overall administration, coordination, and supervision of the team assigned to the vascular surgery service. The following outline is a detailed summary of the specific roles and responsibilities in patient care which are expected from residents assigned to the vascular service at The Ohio State University Hospitals and affiliated institutions:

1. The vascular resident is expected to round twice daily (a.m. and p.m.) on all patients with the service assessing each patient's clinical condition, formulating a treatment plan, assigning team members to implement the plan and closing the loop by following through with "check out" rounds to ensure that the plan was successfully carried out. On days off or when on vacation, this responsibility will be assigned to another vascular resident or junior resident who is on the service (or covering).

2. When on duty, the vascular resident is expected to be available for all emergencies pertaining to patients on or being admitted to their assigned service, and to be physically present when necessary to evaluate, coordinate and assist in the resuscitation and treatment of unstable or acutely ill patients. It should be emphasized that care of the patients on the service are the Vascular Resident's primary responsibility.

3. The vascular resident is expected to review all patient care plans, orders and discharge plans with the vascular surgery care team.

4. The vascular resident is expected to communicate freely and frequently with the team about their patients, including a routine review of their current clinical status as well as reporting any acute changes in their status. An attending must be informed immediately of any significant change in a patient’s condition, the transfer of a patient to the SICU, all hospital consults, admissions, and ER evaluations. If the attending physician is not available then the physician-on-call must be notified.

5. The vascular resident is responsible for allocating the patient care assignments on the service to see to it that all clinical activities, including operations (both major and minor) are appropriate. Operations and procedures are an educational opportunity. The Vascular Resident should make assignments based on the level of training and the educational objectives for the rotation. Assignments should be made far enough in advance to allow the designated residents and student's sufficient time to read, review, and prepare for the task. To assist the Vascular Resident in this regard each attending's has made his/her schedule readily available.

6. The vascular resident is responsible for ensuring that histories and physical exams by a physician are performed on all admissions to the service, as well as daily physician progress notes. Progress notes should be dictated into the IHIS (EMR system) and on the chart prior to the residents going to the OR or clinic. All patients scheduled for operations should be examined and have a preop note dictated note by a resident assigned to that procedure. Consents for operations and procedures must be obtained by an appropriate level physician, knowledgeable in the risks and complications of the procedure in question. Consent may not be obtained by a medical student. Medical student histories and progress notes are not a substitute for physician notes.

7. The vascular resident is responsible for overseeing the evaluation all ER and floor consultations and communicating his/her findings with the attending in a timely manner. If an intermediate level resident has screened the patient first, the vascular resident
needs to review the case and evaluate the patient prior to presenting this to the attending and prior to scheduling a surgical procedure. Consultation must be dictated into the EMR system immediately so the attending physician can review and document his/her findings. When procedures on in-patients need to be scheduled, the vascular resident may either request that the attending's secretary to do so, or schedule the procedure themselves. If the resident schedules a procedure, the attending's secretary should be notified in order to avoid any scheduling conflicts.

8. The vascular resident is responsible for seeing to it that residents are punctual for the assigned tasks.

9. The vascular resident has the responsibility to teach both the junior residents and medical students assigned to the service the fundamental clinical skills applicable to vascular surgical care.

10. It is expected that the vascular resident will prepare for those cases and conferences with which they are involved by reading the appropriate literature.

D. **Progressive Responsibilities for Patient Management**

During their vascular training, residents will develop and assume progressive responsibilities for patient management; this occurs under the direct supervision of the Vascular Surgery physicians. It is understood that early in the vascular residency program, significantly more Vascular Surgery physician input will be required.

Resident training in Vascular Surgery is a progressive educational experience that entails a complex interaction of learning through patient care and knowledge acquisition. As such the second year vascular resident will have more latitude in the day-to-day routine patient care decisions than the first year vascular resident. The first year vascular resident may not transfer a patient to intensive care without first conferring with the attending, while the second year resident may do so prior to conferring with the attending.

Delineation of resident responsibilities for patient care, progressive responsibility for patient management, and supervision of residents over the continuum of the program: the program must integrate the following ACGME competencies into the curriculum:

**Patient Care and Procedure Skills**

- Resident must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- Resident must demonstrate manual dexterity appropriate for their educational level
- Resident must develop and execute patient care plans appropriate for their educational level
- Resident must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice.
- Resident must develop competence in performing operative procedures in the following defined list of categories: Abdominal, cerebrovascular, peripheral, complex, endovascular diagnostic, endovascular therapeutic, and endovascular aneurysm repair.
- Resident must develop competence in patient management, including determining an appropriate diagnosis and operative plan, providing pre-operative care, and directing post-operative care.
- Resident must develop competency in assessing the vascular portion of angiography, computed tomography (CT) scanning and magnetic resonance imaging (MRI) and magnetic resonance angiogram (MRA) images.
• Resident must demonstrate the ability to accurately interpret non-invasive laboratory studies; this experience will include the range and number of non-invasive studies that are required for eligibility for specialty board certification and RPVI exam.

Medical Knowledge

• Resident must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavior sciences, as well as the application of this knowledge to patient care.
• Resident must demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions.
• Resident must demonstrate knowledge of the methods and techniques of angiography, CT scanning, and MRI, MRA, and other vascular imaging modalities.

Practice-based Learning and Improvement

• Resident must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.
• Resident is expected to develop skills and habits to be able to meet the following goals: identify strengths, deficiencies, and limits in one’s knowledge and expertise; set learning and improvement goals; identify and perform appropriate learning activities; systematically analyze practice using quality improvement methods, and implement changes with the goals of practice improvement; incorporate formative evaluation feedback into daily practice; locate appraise, and assimilate evidence from scientific studies related to their patients’ health problems; use information to optimize learning; and participate in the education of patients, families, students, fellows, residents, and other health care professionals.

Interpersonal and Communication Skills

• Resident must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
• Resident is expected to: communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; communicate effectively with physicians, other health professions, and health related agencies; work effectively as a member or leader of a health care team or other professional group; act in a consultative role to other physicians and health professionals; and maintain comprehensive, timely and legible medical records.

Professionalism

• Resident must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
• Resident is expected to demonstrate: compassion, integrity, and respect for others; responsiveness to patient needs that supersedes self-interest; respect for patient privacy and autonomy; accountability to patients, society and the profession; and sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

Systems-based Practice
• Resident must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

• Resident is expected to: work effectively in various health care delivery settings and systems relevant to their clinical specialty; coordinate patient care within the health care system relevant to their clinical specialty; incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate; advocate for quality patient care and optimal patient care systems; work in inter-professional teams to enhance patient safety and improve patient care quality; participate in identifying system errors and implementing potential systems solutions; and demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management.

E. Policy/Protocol defining common circumstances requiring physician involvement:
The attending physician has both an ethical and a legal responsibility for the overall care of the individual patient and for the supervision of the resident involved in the care of the patient. Although vascular residents may require less direction than more junior residents, even the most senior must be supervised. A chain of command that emphasizes graded authority and increasing responsibility as experience is gained must be established. Judgments on this delegation of responsibility shall be based on the individual attending's direct observation and knowledge of each resident's skill." (ACGME Program Requirement)

The attending physician is responsible for supervising both operative procedures and patient care. In circumstances when decisions and patient treatment are to be administered by the vascular resident in the absence of the attending physician, such as may occur at night or on weekends, the attending physician must be notified of all decisions and treatments in a timely fashion to be determined by the vascular resident based on the circumstances of the case. Notification should occur prior to implementation of the treatment unless delay would have a negative impact on the anticipated patient care outcome. The supervisory role can only take place when the attending physician in the Division of Vascular Diseases and Surgery is notified of the patient’s condition, admission, or consultation in the hospital or emergency department. It is the responsibility of the vascular resident to notify the attending under all of the above situations and any other situation that may necessitate supervision by the attending, when he or she is not immediately available. In particular, the physician should be notified about any admissions, changes in patient condition, end of life discussions or decisions involving any change in patient treatment plans, patient and family complaints, or any matter of concern to the resident, no matter the level of training.

F. Resident Transfer protocol:
The transfer and handoff policies and protocols of the Division of Vascular Diseases and Surgery comply with those provided in our Institutional policies and procedures. The vascular service makes formal rounds as a group in the morning and evening. Implicit in those rounds is the handoff of patient information. On the morning rounds, information obtained from the general surgery night float and the vascular resident on call is shared verbally with the oncoming team and a written census is generated containing pertinent notes on the patients. On evening rounds, all patients are discussed with the vascular residents and plans are made for ongoing care. The general surgery residents on the vascular service share this information with the general surgery night float resident who is taking in-house call. A member of the vascular service takes call from home as well and has a thorough understanding of all the patients and consults on the vascular service. There is also a handoff documenting area in the EMR that can be used and a "snapshot" of that site is included for reference. Also included is the Hospital Handoff Communication Policy from which we draft our procedure. The physician will have formal verbal handoffs on the weekends or when leaving town, they may be face-to-face or over the phone.

Also included is the hospital transfer policy for external transfers. The Hospital explicitly states that all external transfers will be accepted, and this is accomplished attending to attending
through the Transfer Center. Internal service to service transfers only occur with the input from the attending, and often involve direct communication from one attending to another. However, fellow to fellow, fellow to resident, or resident to resident communication regarding service transfers is also a necessary part of the education process for trainees. Once the vascular residents have discussed patient transfer with the vascular attending, the residents may work with the other services to arrange the transfer. Program will ensure and monitor effective, structured hand-off processes to facilitate both continuity of care and patient safety.

G. Vascular Resident Scholarly Activities
Vascular residents must actively participate in research or other scholarly activities while in the program as required by the ACGME to fulfill their fellowship responsibilities. All vascular residents are guided in their scholarly activities by the Program Director, physicians or by our research coordinator. A quarterly research meeting occurs to discuss all projects. It is expected that at-least two publications a year are completed by the vascular resident. The curriculum is set up to advance the residents knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients and applied to patient care. Resident will have instruction in critical thinking, design of experiments, and evaluation of data. Residents should participate in clinical and/or laboratory research. The program and sponsoring institution provides adequate time and educational resources to facilitate resident involvement in scholarly activities.

H. Scheduled Didactics
Vascular Residents will attend in the educational activities of the Department of Surgery, specifically:

- General Surgery Grand Rounds (Thursday a.m. weekly)
- General Surgery Morbidity and Mortality Conference (Thursday a.m. weekly)
- Special Visiting Professor Conferences (as scheduled)

Vascular Residents will attend/participate in the following Vascular Surgery conferences:

- 7 a.m. Team rounds with an attending – (Wednesday a.m. weekly)
- Vascular Morbidity and Mortality (bi-weekly)
- Angio Conference(monthly)
- Vascular Research Conference (quarterly)
- Clinical and Basic Science Lecture aka Vascular Grand Rounds (bi-weekly)
- Interesting Case Conference (monthly)
- Pre-Operative Case Conference (monthly)
- Vascular Lab Lecture (quarterly)
- Physician lectures from other specialties/Outside speakers (quarterly)
- Vascular Journal Club (monthly)
- Aortic Center of Excellence Conference (monthly)
- Multi-Disciplinary Peripheral Endovascular Conference (quarterly)

These lectures are mandatory and occur every Monday between 7:00am and 9:00am

Miscellaneous Conferences:

- Orientation to the Vascular Lab (2nd Thursday @10:00) *mandatory every 6-12 months*
- Practice Management Resident Business Class (2nd Thursday monthly @9:00 am) *mandatory*
- 2:1 Fellow/Attending Conference (Billing/Coding, mock oral board exam questions, subject determined by fellows monthly) *mandatory*
- Vascular Operations Council Meeting – monthly *mandatory*
- PVS Communication Council Meeting – quarterly *mandatory*
- Professionalism Council Meeting – monthly *mandatory*

Conferences are protected academic time. Physicians should not expect residents to miss conferences due to surgery or clinics scheduled during conference times. Attendance will be
taken at all conferences, and residents must make sure they sign-in in order to receive credit. Seventy percent attendance is expected; failure to attain this level without an excused absence will be noted and used in determination of advancement/graduation. Attendance at conferences are mandatory but routinely excused for illness, residents who are post-call, on vacation, or attendance at another meetings & courses.

1st Year residents need to read the Vascular Interpretation books, manuals, review CD’s and DVDs relating to vascular lab.

IV. COMPETENCY-BASED EDUCATIONAL GOALS & LEARNING OBJECTIVES FOR VASCULAR RESIDENTS

FIRST YEAR VASCULAR RESIDENT (PGY6)

Open Rotation Evaluation

Patient Care

Goals: The resident will know all of the patients on the service. He/she must see all new admissions, be aware of the problems and progress of all patients, and share that information with the attending staff each morning. The resident will round each morning with the vascular team to expedite patient discharge by noon and reduce length of stay. The resident will communicate effectively with the patient, their family, nursing, physicians and all other ancillary healthcare agents.

Resident demonstrated knowledge of all patients on service.

Resident was aware of all problems and progress of patients on service.

Resident shared information regarding in-house patients with attending each morning.

Resident rounded daily.

Resident discharged patients by noon.

Resident communicated effectively with patient, families, nurses, attending and other ancillary healthcare agents.

Resident will build upon his/her understanding of vascular disease acquired during general surgery residency in an expansive fashion and integrate this increased knowledge into daily practice. The resident will gather essential and accurate information about their patients in their daily decision-making. The resident will work with healthcare professionals from other services to provide patient-focused care.

Resident demonstrated knowledge of vascular disease for current level of training.

Resident made appropriate decision-making for current level of training.

Resident will participate in the Vascular Surgery Outpatient Clinic one day per week. During that time activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultation under the supervision of attending physician.

Resident participated in vascular surgery outpatient clinics.

Residents examination and evaluations of patients in clinic where appropriate for current level of training.

Under physician supervision, the resident should be able to perform all open index vascular operations. As the year progresses, mastery of these skills should be achieved and the resident
will first-assist general surgery residents in the performance of minor vascular cases, under the supervision of the vascular physician.

Resident performed open index vascular operations for current level of training.

Resident skill and performance of minor vascular cases for current level of training.

Resident will deliver patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. Feedback will be given daily by the physician during rounds and conferences, particularly morbidity and mortality conference. The physician will provide written evaluations quarterly, and these assessments will be discussed with the resident by the Program Director.

Resident must develop and execute patient care plans.

Resident was actively involved in rounds and conferences.

Resident will acquire the skills to manage the postoperative care of patients having open vascular procedures.

Resident managed post-operative care of patient having open vascular procedure.

Objective:
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining health
6. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

Teaching Methods:
1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

Evaluation Methods:
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of clinical practice
9. Simulation
10. Case logs
11. Global assessment by Clinical Competency Committee

ACGME Vascular Milestone: PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2
Medical Knowledge

**Goals:** The resident will demonstrate detailed, advanced knowledge of the medical and surgical management of vascular disorders.

Resident demonstrated detailed, advanced knowledge of medical and surgical management of vascular disorders.

Resident should understand the natural history of all common vascular disorders. The resident will be introduced to the basic science and clinical curricula provided by the APDVS through lecture, seminar and independent study.

Resident will recognize angiographic abnormalities in all vascular beds pertinent to vascular surgery and be introduced to MRA and CTA interpretation.

Resident recognized angiographic abnormalities in all vascular beds.

Resident will demonstrate knowledge of the indications and outcomes for all index open vascular operations, including but not limited to carotid or other endarterectomies, thoracic and abdominal aneurysm or occlusive disease, peripheral vascular occlusive and aneurysmal disease, thoracic outlet syndrome, need for AV access, and venous disorders.

Resident demonstrated knowledge of indications and outcomes for index open vascular operations.

Resident will demonstrate and investigatory and analytic thinking approach to all of these pertinent clinical situations.

Resident demonstrated investigatory and analytic thinking to clinical situations.

Resident will present at Vascular Morbidity and Mortality Conference in an informed fashion.

Resident will show an understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident demonstrated understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident will begin acquiring performance and interpretation skills in the noninvasive vascular lab.

Resident acquired performance and interpretation skills in the noninvasive vascular lab.

**Objective:**

1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

**Teaching Methods:**

1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone: MK1, MK2, MK3, SBP3, PBLI2, PBLI3,**

**Practice-Based Learning and Improvement**

**Goals:** The resident will continue to learn how to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will apply this knowledge to also educate other nonvascular residents and medical students on the service.

Resident effectively utilizes institutional educational resources.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will demonstrate the ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients' health problems. They will critically review study designs and statistical methods of clinical studies.

Resident demonstrated the ability to use electronic information to support patient care and self-education.

Resident was able to review study designs and statistical methods of clinical studies.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Monday morning from 7AM to 9 AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes.

Resident will take the Vascular Surgery In-Training Exam yearly. They will review their missed questions with the Program Director to gain necessary knowledge.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
b. Set learning and improvement goals  
c. Identify and perform appropriate learning activities  
d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement  
e. Incorporate formative evaluation feedback into daily practice  
f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems  
g. Use information technology to optimize learning  
h. Participate in the education of patients, families, students, residents, fellows and other health professionals

**Teaching Method:**  
1. Direct observation  
2. Vascular Grand Rounds  
3. Didactic lectures  
4. Role model  
5. Participate in clinical research projects  
6. Journal Club presentation  
7. Reading

**Evaluation Methods:**  
1. Physician evaluations  
2. Resident evaluations  
3. Patient evaluation  
4. Self-evaluation  
5. Audit of clinical practice  
6. Case logs  
7. Biannual review with Program Director  
8. Clinical Competency Committee

**ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3**

**Interpersonal and Communication Skills**  
**Goals:** Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident demonstrated effective interpersonal and communication skills.

Residents will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident demonstrated the ability to obtain histories and informed consents.

Resident informed patients of their diagnosis and treatment plan effectively.

Resident entered appropriate information on consults and progress notes in EMR both in inpatient and outpatient settings.

Residents will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

Resident worked effectively with other members of the healthcare team.

Resident delivered seamless patient care.

Resident effectively communicated and interacted with ancillary support staff.
Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear and concise fashion.

Goals are to develop a good bedside manner, effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities. The resident must learn to communicate in a sincere and compassionate manner.

Resident had a good bedside manner.

Resident was sensitive to patient’s ethnicity, age, and disability.

Resident must be able to communicate and teach medical students, interns, and other rotators in an effective manner and exhibit quality and effective leadership.

Resident effectively communicated with medical students, interns and other rotators.

Resident demonstrated quality and effective leadership.

**Objective:**
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

**Teaching Methods:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** ICS1, ICS2, Prof3, PBLI1

**Professionalism**

**Goals:** All residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.
Resident will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that superseded his/her own self-interest.

Resident demonstrated a commitment to excellence and continuous professional development.

Resident demonstrated commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident demonstrated commitment to ethical principles, patient confidentiality, and informed consent.

Resident demonstrated sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident demonstrated respect and professional demeanor to patients, families, colleagues, and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Resident are expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

Resident demonstrated a deeper understanding of the ethical, economical, and legal aspects of vascular care.

**Objective:**

1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

**Teaching Methods:**

1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

**Evaluation Methods:**

1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

**ACGME Vascular Milestone: Prof1, Prof2, Prof3**
System-Based Practice

**Goals:** The resident will develop an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation.

Resident will develop a deeper understanding of the above concepts. In addition the resident will develop an understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident should demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems and at the same time apply resource allocation that does not compromise patient care.

Resident demonstrated knowledge of cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems.

**Objective:**
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

**Teaching Methods:**
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

**ACGME Vascular Milestone:** SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,
COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENT
SECOND YEAR VASCULAR RESIDENTS (PGY7)
Open Rotation

Patient Care

Goals: The resident will know all of the patients on the service. He/she must see all new admissions, be aware of the problems and progress of all patients, and share that information with the attending staff each morning. The resident will round each morning with the vascular team to expedite patient discharge by noon and reduce length of stay. The resident will communicate effectively with the patient, their family, nursing, physicians and all other ancillary healthcare agents.

Resident demonstrated knowledge of all patients on service.
Resident was aware of all problems and progress of patients on service.
Resident shared information regarding in-house patients with attending each morning.
Resident rounded daily.
Resident discharged patients by noon.
Resident communicated effectively with patient, families, nurses, attending and other ancillary healthcare agents.

Resident will build upon his/her understanding of vascular disease acquired during general surgery residency in an expansive fashion and integrate this increased knowledge into daily practice. The resident will gather essential and accurate information about their patients in their daily decision-making. The resident will work with healthcare professionals from other services to provide patient-focused care.

Resident demonstrated knowledge of vascular disease for current level of training.
Resident made appropriate decision-making for current level of training.

Resident will participate in the Vascular Surgery Outpatient Clinic one day per week. During that time activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultation under the supervision of attending physician.

Resident participated in vascular surgery outpatient clinics.
Resident's examination and evaluations of patients in clinic where appropriate for current level of training.

Under physician supervision, the resident should be able to perform all open index vascular operations with minimal intervention by the physician and first assist general surgery residents in the performance of more advanced vascular operations. As the year progresses, mastery of these skills should be achieved in preparation for the resident to be an independently operating vascular physician.

Resident performed open index vascular operations for current level of training.
Resident skill and performance of minor vascular cases for current level of training.
Resident first assist general surgery residents in the performance of more advanced vascular operations.

Resident demonstrated the skills to work independently in the OR.

Resident will deliver patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. Feedback will be given daily by the physician during rounds and conferences, particularly morbidity and mortality conference. The physician will provide written evaluations quarterly, and these assessments will be discussed with the resident by the Program Director.

Resident must develop and execute patient care plans.

Resident was actively involved in rounds and conferences.

Resident will make all service assignments, including operating room and clinic coverage.

Resident capable of making service assignments, including operating room and clinic coverage.

Resident will administer postoperative care to patients having open operations in an enriched and authoritative fashion.

Resident managed postoperative care to patients having open vascular procedures.

**Objective:**
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining health
6. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

**Teaching Methods:**
1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of clinical practice
9. Case logs
10. Simulation
11. Global assessment by Clinical Competency Committee
ACGME Vascular Milestone: PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

Medical Knowledge

**Goals:** The resident should be able to demonstrate detailed, comprehensive knowledge of the medical and surgical management of vascular disorders.

Resident demonstrated detailed, advanced knowledge of medical and surgical management of vascular disorders.

Resident will possess the knowledge that allows appropriate decision-making in determining an open versus endovascular operative approach to the patient’s condition.

Resident demonstrated the ability in determining open versus endovascular operative approach to the patient’s condition.

Resident should understand the natural history of rare and all common vascular disorders.

Resident will complete the basic science and clinical curricula provided by the APDVS through lecture, seminar and independent study.

Resident will recognize angiographic abnormalities of an advanced nature in all vascular beds pertinent to vascular surgery and have an advanced understanding of the roles of MRA and CTA in the interpretation of vascular disorders.

Resident recognized angiographic abnormalities in all vascular beds.

Resident has the advanced understanding of the roles of MRA and CTA in the interpretation of vascular disorders.

Resident will demonstrate an advanced understanding of the indications and outcomes for all index open vascular operations, including but not limited to carotid or other endarterectomies, thoracic and abdominal aneurysm or occlusive disease, peripheral vascular occlusive and aneurysmal disease, thoracic outlet syndrome, need for AV access, and venous disorders. In addition, the resident will understand the indications for reoperation in scenarios of increasing complexity.

Resident demonstrated advanced knowledge and understanding of indications and outcomes for index open vascular operations.

Resident understands the indications for reoperation in scenarios of increasing complexity.

Resident will present at Vascular Morbidity and Mortality Conference in an authoritative fashion. The resident will show an advanced understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident demonstrated understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident will continue the acquisition of noninvasive vascular lab skills in an enriched fashion and be qualified to read at the attending level when finished with training. The resident will be qualified to sit for the RPVI examination.

Resident acquired performance and interpretation skills in the noninvasive vascular lab.

**Objective:**
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

**Practice-Based Learning and Improvement**

**Goals:** The resident will continue to learn to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery and teach others on the service under them to do the same. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will continue to apply this knowledge in a more comprehensive fashion to educate other residents and medical students on the service.

Resident effectively utilizes institutional educational resources.

Resident assists others on the service on how to apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery.

Resident applies his/her knowledge in a more comprehensive fashion to educate other residents and medical students on the service.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will expand upon their ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will adopt the critical review of study design and statistical analysis as a lifelong function.

Resident demonstrated the ability to use electronic information to support patient care and self-education.

Resident was able to locate, appraise, and assimilate evidence from scientific studies and relate these findings to their patients’ health problems.
Resident is able to review study designs and statistical methods of clinical studies.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Friday morning from 7AM to 9AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday. The resident will also critically look at the Vascular Conferences and make constructive recommendations for the improvement in content and quality.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes in preparation for independent practice.

Resident shows interest in improving practices and patient care outcomes in preparation for independent practice.

Resident will critically evaluate information in the surgical literature as it pertains to vascular conditions during journal club and independent reading.

Resident will take the Vascular Surgery In-Training Exam yearly, improve upon prior year’s score and review their missed questions with the Program Director in preparation for their written examination.

At the end of this year the resident will be a competent, independent operator.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
   d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   e. Incorporate formative evaluation feedback into daily practice
   f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   g. Use information technology to optimize learning
   h. Participate in the education of patients, families, students, residents, fellows and other health professionals

**Teaching Method:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Case logs
6. Audit of clinical practice
7. Biannual review with Program Director
8. Clinical Competency Committee

ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3

Interpersonal and Communication Skills

Goals: Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident demonstrated effective interpersonal and communication skills.

Resident will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident demonstrated the ability to obtain histories and informed consents.

Resident informed patients of their diagnosis and treatment plan.

Resident entered concise consultative and progress notes into the EMR for both inpatient and outpatient settings.

Resident will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

Resident worked effectively with other members of the healthcare team.

Resident delivered seamless patient care.

Resident effectively communicated and interacted with ancillary support staff.

Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear, concise and authoritative fashion. Goals are to refine a good bedside manner and effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities. The resident must learn to communicate sincerely and compassionately.

Resident had a good bedside manner.

Resident was sensitive to patient’s ethnicity, age, and disability.

Resident must be able to communicate and teach medical students, residents and other rotators in an effective manner while exhibiting quality and effective leadership.

Resident effectively communicated with medical students and fellow trainees.

Resident demonstrated quality and effective leadership.

Objective:
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

**Teaching Methods:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** ICS1, ICS2, Prof3, PBLI1

**Professionalism**

**Goals:** All residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

Resident will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient's culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Resident is expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

**Objective:**
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
Teaching Methods:
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

ACGME Vascular Milestone: Prof1, Prof2, Prof3

System-Based Practice

Goals: The resident will build upon an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and their other professional practices affect other healthcare professional, the healthcare organization, and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation as well as facilitating any special needs on the part of the patient and family.

Resident will develop a deeper understanding of the above concepts. In addition the resident will refine their understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident will demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems in an expansive fashion.

Resident should be able to communicate with consultants, referring physicians and families at the level of an independent practitioner.

Objective:
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

**Teaching Methods:**
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

**ACGME Vascular Milestone: SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,**

**COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENTS**

**FIRST YEAR VASCULAR RESIDENT (PGY6)**

**Endovascular Rotation**

**Patient Care**

**Goals:** The resident will know all of the patients on the service. He/she must see all new admissions, be aware of the problems and progress of all patients, and share that information with the attending staff each morning. The resident will round each morning with the vascular team to expedite patient discharge by noon and reduce length of stay. The resident will communicate effectively with the patient, their family, nursing, physicians and all other ancillary healthcare agents.

Resident will build upon his/her understanding of vascular disease acquired during general surgery residency in an expansive fashion and integrate this increased knowledge into daily practice. The resident will gather essential and accurate information about their patients in their daily decision-making. The resident will work with healthcare professionals from other services to provide patient-focused care.

Resident will participate in the Vascular Surgery Outpatient Clinic one day per week. During that time activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultation under the supervision of attending physician.

Under physician supervision, the resident should be able to perform all endovascular index procedures. As the year progresses, mastery of these skills should be achieved.

Resident will deliver patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. Feedback will be given daily by the physician during rounds and conferences, particularly morbidity and mortality conference. The physician will provide written evaluations quarterly, and these assessments will be discussed with the resident by the Program Director.

Resident will acquire the skills to manage the postoperative care of patients having endovascular procedures.

Resident must develop and execute patient care plans.

**Objective:**
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining health
6. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

Teaching Methods:
1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

Evaluation Methods:
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of clinical practice
9. Simulation
10. Case logs
11. Global assessment by Clinical Competency Committee

ACGME Vascular Milestone: PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

Medical Knowledge
Goals: The resident will demonstrate detailed, advanced knowledge of the medical and surgical management of vascular disorders.

Resident should understand the natural history of all common vascular disorders. The resident will be introduced to the basic science and clinical curricula provided by the APDVS through lecture, seminar and independent study.

Resident will recognize angiographic abnormalities in all vascular beds pertinent to vascular surgery and be introduced to MRA and CTA interpretation.

Resident will demonstrate knowledge of the indications and outcomes for all index endovascular procedures, including but not limited to angiography, venography, carotid stenting, thoracic and abdominal aneurysm stent graft repairs, peripheral angioplasty, stenting, atherectomy, thrombolysis and embolization. Resident will demonstrate and investigatory and analytic thinking approach to all of these pertinent clinical situations.

Resident will present at Vascular Morbidity and Mortality Conference in an informed fashion.

Resident will show an understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident will begin acquiring performance and interpretation skills in the noninvasive vascular lab.
Objective:
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

Teaching Methods:
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

Evaluation Methods:
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

ACGME Vascular Milestone: MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

Practice-Based Learning and Improvement

Goals: The resident will continue to learn how to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will apply this knowledge to also educate other nonvascular residents and medical students on the service.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will demonstrate the ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will critically review study designs and statistical methods of clinical studies.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Monday morning from 7AM to 9 AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes.
Resident will take the Vascular Surgery In-Training Exam yearly. They will review their missed questions with the Program Director to gain necessary knowledge.

Objective:
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   i. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   j. Set learning and improvement goals
   k. Identify and perform appropriate learning activities
   l. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   m. Incorporate formative evaluation feedback into daily practice
   n. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   o. Use information technology to optimize learning
   p. Participate in the education of patients, families, students, residents, interns, fellows and other health professionals

Teaching Method:
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Biannual review with Program Director
6. Clinical Competency Committee

ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3

Interpersonal and Communication Skills

Goals: Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear and concise fashion.

Resident must learn to communicate in a sincere and compassionate manner. They are to develop a good bedside manner, effective communication and listening skills, teach residents to
act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities.

Resident must be able to communicate and teach medical students, interns, other rotators in an effective manner and exhibit quality and effective leadership.

**Objective:**
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

**Teaching Methods:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** ICS1, ICS2, Prof3, PBLI1

**Professionalism**

**Goals:** Residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

Resident will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Resident is expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

**System-Based Practice**
Goals: The resident will develop an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation.

Resident will develop a deeper understanding of the above concepts. In addition the resident will develop an understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident should demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems and at the same time apply resource allocation that does not compromise patient care.

Objective:
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

Teaching Methods:
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

ACGME Vascular Milestone: SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,

COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENT
SECOND YEAR VASCULAR RESIDENTS (PGY7)
Endovascular Rotation
Goals and learning objectives for second year vascular residents will be essentially the same as those of first year residents but in a more enriched fashion and with a few modifications.

Patient Care

**Goals:** The resident will know all of the patients on the service. He/she must see all new admissions, be aware of the problems and progress of all patients, and share that information with the attending staff each morning. The resident will round each morning with the vascular team to expedite patient discharge by noon and reduce length of stay. The resident will communicate effectively with the patient, their family, nursing, physicians and all other ancillary healthcare agents.

Resident will build upon his/her understanding of vascular disease acquired during general surgery residency in an expansive fashion and integrate this increased knowledge into daily practice. The resident will gather essential and accurate information about their patients in their daily decision-making. The resident will work with healthcare professionals from other services to provide patient-focused care.

Resident will participate in the Vascular Surgery Outpatient Clinic one day per week. During that time activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultation under the supervision of attending physician.

Under physician supervision, the resident must be able to perform all open index endovascular procedures with minimal intervention by the physician. As the year progresses, mastery of these skills must be achieved in preparation for the resident to be an independently operating vascular physician.

Resident will deliver patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. Feedback will be given daily by the physician during rounds and conferences, particularly morbidity and mortality conference. The physicians will provide written evaluations quarterly, and these assessments will be discussed with the resident by the Program Director.

Resident will make all service assignments, including operating room and clinic coverage.

Resident will administer postoperative care to patients having an endovascular operation in an enriched and authoritative manner.

Resident must develop and execute patient care plans.

**Objective:**

1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining health
6. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

**Teaching Methods:**

1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of clinical practice
9. Simulation
10. Case logs
11. Global assessment by Clinical Competency Committee

**ACGME Vascular Milestone:** PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

**Medical Knowledge**

**Goals:** The resident should be able to demonstrate detailed, comprehensive knowledge of the medical and surgical management of vascular disorders.

Resident will possess the knowledge that allows appropriate decision-making in determining an open versus endovascular operative approach to the patient’s condition.

Resident should understand the natural history of rare and all common vascular disorders.

Resident will complete the basic science and clinical curricula provided by the APDVS through lecture, seminar and independent study.

Resident will recognize angiographic abnormalities of an advanced nature in all vascular beds pertinent to vascular surgery and have an advanced understanding of the roles of MRA and CTA in the interpretation of vascular disorders.

Resident will demonstrate an advanced understanding of the indications and outcomes for all index open vascular operations, including but not limited to angiography, venography, carotid stenting, thoracic and abdominal aneurysm stent graft repairs, peripheral angioplasty, stenting, atherectomy, thrombolysis and embolization. In addition, the resident will understand the indications for reoperation in scenarios of increasing complexity.

Resident will present at Vascular Morbidity and Mortality Conference in an authoritative fashion. The resident will show an advanced understanding of established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.

Resident will continue the acquisition of noninvasive vascular lab skills in an enriched fashion and be qualified to read at the attending level when finished with training. The resident will be qualified to sit for the RPVI examination.

**Objective:**
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone: MK1, MK2, MK3, SBP3, PBLI2, PBLI3,**

**Practice-Based Learning and Improvement**

**Goals:** The resident will continue to learn to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery and teach others on the service under them to so the same. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will continue to apply this knowledge in a more comprehensive fashion to educate other residents and medical students on the service.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will expand upon their ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will adopt the critical review of study design and statistical analysis as a lifelong function.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Friday morning from 7AM to 9AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday. The resident will also critically look at the Vascular Conferences and make constructive recommendations for the improvement in content and quality.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes in preparation for independent practice. Residents will critically evaluate information in the surgical literature as it pertains to vascular conditions during journal club and independent reading.

Resident will take the Vascular Surgery In-Training Exam yearly, improve upon prior year’s score and review their missed questions with the Program Director in preparation for their written examination.

At the end of this year the resident will be a competent, independent operator.
Objective:
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
   d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   e. Incorporate formative evaluation feedback into daily practice
   f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   g. Use information technology to optimize learning
   h. Participate in the education of patients, families, students, residents, interns, fellows and other health professionals

Teaching Method:
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Audit of clinical practice
6. Case logs
7. Biannual review with Program Director
8. Clinical Competency Committee

ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3

Interpersonal and Communication Skills

Goals: Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.
Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear, concise and authoritative fashion.

Goals are to refine a good bedside manner and effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the
patient’s ethnicity, age, and disabilities. The resident must learn to communicate sincerely and compassionately.

Resident must be able to communicate and teach medical students, residents, interns and other rotators in an effective manner while exhibiting quality and effective leadership.

**Objective:**
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

**Teaching Methods:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** ICS1, ICS2, Prof3, PBLI1

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**Professionalism**

**Goals:** All residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

Resident will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Residents are expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

**Objective:**
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

Teaching Methods:
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

ACGME Vascular Milestone: Prof1, Prof2, Prof3

System-Based Practice
Goals: The resident will build upon an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and their other professional practices affect other healthcare professional, the healthcare organization, and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation as well as facilitating any special needs on the part of the patient and family.

Resident will develop a deeper understanding of the above concepts. In addition the resident will refine their understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident will demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems in an expansive fashion.

Resident should be able to communicate with consultants, referring physicians and families at the level of an independent practitioner.

Objective:
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

Teaching Methods:
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

ACGME Vascular Milestone: SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,

COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENTS

FIRST YEAR VASCULAR RESIDENT (PGY6)
Outpatient Clinic Rotation

Patient Care
Goals: The resident will participate in the Vascular Surgery Outpatient Clinic one day per week, rotating between the arterial vascular clinic 3 days per month and the venous disease clinic one day per month. He/she will independently interview and examine new and established patients and with assistance and constructive criticism from the attending create medical and procedural/surgical treatment plans.

The resident will communicate effectively with the patient, their family, referring physicians, the clinic based mid-level providers, nurses, and staff, learning how to build rapport and be an effective team member in the outpatient setting.

The resident will build upon his/her understanding of outpatient arterial and venous disease and integrate this knowledge into each outpatient encounter. He/she will gather essential and accurate information about their patients, learn to present cogently, and communicate professionally in letter and oral forms with the referring physician.

The resident will participate in and learn about medical management of atherosclerotic risk factors including hypertension, hyperlipidemia, smoking and lifestyle adjustment, and the medical management of claudication. They will acquire the ability to evaluate and treat cosmetic and pathologic venous disorders in an outpatient setting. They will participate and learn about the pre-and peri-procedural management of vascular conditions requiring intervention or surgery and also postoperative outpatient care.

Feedback will be given in real time by the faculty during each patient encounter.

Objective:
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining health
6. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

**Teaching Methods:**
1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

**Evaluation Methods:**
1. Faculty evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of Clinical practice
9. Simulation
10. Case logs
11. Global assessment by Clinical Competency Committee

**ACGME Vascular Milestone:** PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

**Medical Knowledge**

**Goals:** The resident will accumulate advanced knowledge of the medical and surgical outpatient management of vascular disorders, both venous and arterial.

This will include understanding the natural history of all common vascular disorders as well as the signs and symptoms of these disorders which are important in diagnosing and treating outpatient vascular diseases.

The resident will gain proficiency in the selection and interpretation of outpatient and pre-procedural imaging and testing, including arterial and venous noninvasive studies, physiologic arterial and venous testing, and catheter, CT, and MR angiography.

The resident will demonstrate knowledge of the indications and outcomes for all index open and endovascular operations, as well as the indications and outcomes of medical therapies for vascular disease. They will integrate this knowledge into the treatment of peri-procedural patients and patients who have had complications seen in the outpatient setting.

**Objective:**
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions.

3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities.

4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system.

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Faculty evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review patient charts/case review
6. RPVI Exam
7. Biannual review with Program Director
8. Clinical Competency Committee

**ACGME Vascular Milestone:** MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

**Practice-Based Learning and Improvement**

**Goals:** The resident will continue to learn how to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will apply this knowledge to also educate other nonvascular residents and medical students on the service.

Residents will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will demonstrate the ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will critically review study designs and statistical methods of clinical studies.

The resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

The resident will attend Vascular Conference every Monday morning from 7AM to 9 AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday.

Residents will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes.

The resident will take the Vascular Surgery In-Training Exam yearly. They will review their missed questions with the Program Director to gain necessary knowledge.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
   d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   e. Incorporate formative evaluation feedback into daily practice
   f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   g. Use information technology to optimize learning
   h. Participate in the education of patients, families, students, fellows and other health professionals

Teaching Method:
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

Evaluation Methods:
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Audit of clinical practice
6. Case logs
7. Biannual review with Program Director
8. Clinical Competency Committee

ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3

Interpersonal and Communication Skills
Goals: Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Residents will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Residents will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

The resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

The resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear and concise fashion.

Goals are to develop a good bedside manner, effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s
ethnicity, age, and disabilities. The resident must learn to communicate in a sincere and compassionate manner.

The resident must be able to communicate and teach medical students and fellow trainees in an effective manner and exhibit quality and effective leadership.

**Objective:**
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

**Teaching Methods:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

**Evaluation Methods:**
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** ICS1, ICS2, Prof3, PBLI1

**Professionalism**

**Goals:** All residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

All residents will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

All residents will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

All residents will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Residents are expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

**Objective:**
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

**Teaching Methods:**
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

**Evaluation Methods:**
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

**ACGME Vascular Milestone: Prof1, Prof2, Prof3**

**System-Based Practice**

**Goals:** The resident will develop an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and society as a whole.

The resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

The resident should be able to arrange for appropriate consults for vascular patients.

The resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation.

The resident will develop a deeper understanding of the above concepts. In addition the resident will develop an understanding of the patient's environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

The resident should demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems and at the same time apply resource allocation that does not compromise patient care.

**Objective:**
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in interprofessional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

Teaching Methods:
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

Evaluation Methods:
1. Faculty evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

ACGME Vascular Milestone: SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,

COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENT

SECOND YEAR VASCULAR RESIDENTS (PGY7)
Outpatient Clinic Rotation

Goals and learning objectives for second year vascular residents will be essentially the same as those of first year residents but in a more enriched fashion and with a few modifications.

Patient Care

Goals: The resident will participate in the Vascular Surgery Outpatient Clinic one day per week, rotating between the arterial vascular clinic (3 days per month) and the venous disease clinic (one day per month). He/she will independently interview and examine new and established patients and independently create medical and procedural/surgical treatment plans with the supervision of the attending.

The resident will communicate effectively with the patient, their family, referring physicians, the clinic based mid-level providers, nurses, and staff, perfecting a technique for building rapport and being an effective team leader in the outpatient setting.

The resident will build upon his/her understanding of outpatient vascular disease and integrate this knowledge into each outpatient encounter. He/she will gather essential and accurate information about their patients, perfect presenting cogently, and communicate professionally in letter and oral forms with the referring physician.

The resident will direct the medical management of atherosclerotic risk factors including hypertension, hyperlipidemia, smoking and lifestyle adjustment, and the medical management of claudication. They will direct the pre- and peri-procedural management of vascular conditions requiring intervention or surgery and also postoperative outpatient care. They will acquire the techniques needed to perform outpatient cosmetic and pathologic vein disorder procedures.

Feedback will be given in real time by the faculty during each patient encounter.

Objective:
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Integration of medical facts and clinical data as the basis for diagnosis
4. Appropriately counsel and educate patients and their families about specific vascular
diseases, treatment procedures, options and potential outcomes
5. Know the health care services aimed at preventing vascular problems and maintaining
health
6. Work with other medical and surgical disciplines and health care professionals to provide
multidisciplinary care to the vascular patient
7. Understand process development to ensure patient safety
8. Communicate effectively and demonstrate caring and respectful behaviors when
interacting with patients and their families

Teaching Methods:
1. Direct observation/supervision
2. Didactic lectures
3. Presentation in clinic
4. Role model

Evaluation Methods:
1. Faculty evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Teaching rounds
6. Biannual review with program director
7. Nursing/NP evaluations
8. Audit of clinical practice
9. Case Logs
10. Simulation
11. Global assessment by Clinical Competency Committee

ACGME Vascular Milestone: PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2,
ICS1, ICS2

Medical Knowledge
Goals: The resident will demonstrate mastery of the medical and surgical outpatient
management of vascular disorders, both venous and arterial.

This will include understanding the natural history of all common vascular disorders as well as the
signs and symptoms of these disorders which are important in diagnosing and treating outpatient
vascular diseases

The resident will become expert in the independent selection and interpretation of outpatient and
pre-procedural imaging and testing, including arterial and venous noninvasive studies,
physiologic arterial and venous testing, and catheter, CT, and MR angiography.

The resident will demonstrate mastery of the indications and outcomes for all index open and
endovascular operations, as well as the indications and outcomes of medical therapies for
vascular disease. They will integrate this knowledge into the treatment of peri-procedural patients
and patients who have had complications seen in the outpatient setting.

Objective:
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological
and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology,
embryology, microbiology, physiology, and pathology as they relate to the
pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning,
MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Faculty evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

**Practice-Based Learning and Improvement**

**Goals:** The resident will continue to learn to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery and teach others on the service under them to so the same. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will continue to apply this knowledge in a more comprehensive fashion to educate other residents and medical students on the service.

Residents will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will expand upon their ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will adopt the critical review of study design and statistical analysis as a lifelong function.

The resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

The resident will attend Vascular Conference every Friday morning from 7AM to 9AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday. The resident will also critically look at the Vascular Conferences and make constructive recommendations for the improvement in content and quality.

Residents will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes in preparation for independent practice.

Residents will critically evaluate information in the surgical literature as it pertains to vascular conditions during journal club and independent reading.

The resident will take the Vascular Surgery In-Training Exam yearly, improve upon prior year’s score and review their missed questions with the Program Director in preparation for their written examination.
At the end of this year the resident will be a competent, independent operator.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
   d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   e. Incorporate formative evaluation feedback into daily practice
   f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   g. Use information technology to optimize learning
   h. Participate in the education of patients, families, students, fellows and other health professionals

**Teaching Method:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

**Evaluation Methods:**
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Audit of clinical practice
6. Case logs
7. Biannual review with Program Director
8. Clinical Competency Committee

**ACGME Vascular Milestones: PBL1, PBL2, PBL3**

**Interpersonal and Communication Skills**

**Goals:** Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Residents will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Residents will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

The resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.
The resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear, concise and authoritative fashion.

Goals are to refine a good bedside manner and effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities. The resident must learn to communicate sincerely and compassionately.

The resident must be able to communicate and teach medical students and fellow trainees in an effective manner while exhibiting quality and effective leadership.

Objective:
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

Teaching Methods:
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

Evaluation Methods:
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

ACGME Vascular Milestone: ICS1, ICS2, Prof3, PBLI1

Professionalism

Goals: All residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

All residents will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities. All residents will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

All residents will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.
Residents are expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

**Objective:**
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

**Teaching Methods:**
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

**Evaluation Methods:**
1. Faculty evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

**ACGME Vascular Milestone: Prof1, Prof2, Prof3**

**System-Based Practice**

**Goals:** The resident will build upon an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and their other professional practices affect other healthcare professional, the healthcare organization, and society as a whole.

The resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

The resident should be able to arrange for appropriate consults for vascular patients.

The resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation as well as facilitating any special needs on the part of the patient and family.

The resident will develop a deeper understanding of the above concepts. In addition the resident will refine their understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

The resident will demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems in an expansive fashion.

The resident should be able to communicate with consultants, referring physicians and families at the level of an independent practitioner.

**Objective:**
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty.
3. Coordinate patient care within the health care system relevant to their clinical specialty.
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate.
5. Advocate for quality patient care and optimal patient care systems.
6. Work in interprofessional teams to enhance patient safety and improve patient care quality.
7. Participate in identifying system errors and implementing potential systems.
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management.

**Teaching Methods:**
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

**Evaluation Methods:**
1. Faculty evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

**ACGME Vascular Milestone:** SBP1, SBP2, SBP3, PBLI1, PBLI2, PBLI3

**COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENTS**

**FIRST YEAR VASCULAR RESIDENT (PGY6)**

**Vascular Laboratory Rotation**

**Patient Care**

**Goal:** The resident will develop the ability to convey the reason for and the results of the particular vascular laboratory test to the patient in a clear and concise fashion. The resident will build upon his/her understanding of vascular disease acquired during general surgery residency in an expansive fashion and integrate this increased knowledge into daily practice and ordering of noninvasive vascular testing. Resident must develop and execute patient care plans. Resident must demonstrate the ability to accurately interpret non-invasive laboratory studies.

**Objective:**
1. Experience to include the range and number of non-invasive studies that would allow residency graduates to fulfill the requirement of eligibility for specialty board certification and RVPI.
2. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
3. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints.
4. Interpret non-invasive imaging studies to determine that the requested procedure is appropriate.
5. Integration of medical facts and clinical data as the basis for diagnosis.
6. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes.
7. Know the health care services aimed at preventing vascular problems and maintaining health.
8. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
9. Competently perform all diagnostic and invasive procedures considered essential for the area of practice
10. Understand process development to ensure patient safety
11. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Presentation in clinic
5. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. RPVI exam
6. Teaching rounds
7. Biannual review with program director
8. Vascular Lab case logs
9. Audit of clinical practice
10. Simulation
11. Nursing/NP evaluations
12. Global assessment by Clinical Competency Committee

**ACGME Vascular Milestone:** PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

**Medical Knowledge**
**Goal:** The resident will begin acquiring performance and interpretation skills in the noninvasive vascular lab. The resident will spend a half day every other Wednesday observing and performing vascular noninvasive studies, interpreting the results, preparing reports and reviewing current and classic literature. Their progress and knowledge base will be regularly assessed through the administration of regular quizzes related to ultrasound images. They will be expected to sit for their RPVI exam during their second year. In order to take the exam, minimum numbers are 100 venous duplex scans, 100 carotid artery duplex scans, and 100 physiologic arterial procedures. They are required to develop an understanding of the physiologic basis of these tests and their limitations, must know when to order the particular tests and demonstrate the ability to accurately interpret their results. Testing will include but not be limited to arterial and venous imaging studies, carotid duplex scanning and renal and visceral artery imaging.

**Objective:**
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Reading
6. Presentation in clinic

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. Review of Vascular lab interpretation log
6. Review patient charts/case review
7. RPVI Exam
8. Biannual review with Program Director
9. Clinical Competency Committee

**ACGME Vascular Milestone:** MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

**Practice-Based Learning and Improvement**

**Goal:** To expand their knowledge of noninvasive testing, the resident will review the Association of Program Directors in Vascular Surgery and Society for Vascular Surgery Noninvasive Vascular Laboratory lecture series. They will receive a copy of *Vascular Technology: An Illustrated Review.*

Resident will continue to learn how to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will apply this knowledge to also educate other nonvascular residents and medical students on the service.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will demonstrate the ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will critically review study designs and statistical methods of clinical studies.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Monday morning from 7AM to 9 AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes.

Resident will take the Vascular Surgery In-Training Exam yearly. They will review their missed questions with the Program Director to gain necessary knowledge.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement

e. Incorporate formative evaluation feedback into daily practice

f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems

g. Use information technology to optimize learning

h. Participate in the education of patients, families, students, interns, other rotators and other health professionals

**Teaching Method:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Audit of clinical practice
6. Case logs
7. Biannual review with Program Director
8. Clinical Competency Committee

**ACGME Vascular Milestones: PBLI1, PBLI2, PBLI3**

**Interpersonal and Communication Skills**

**Goal:** Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear and concise fashion.

Goals are to develop a good bedside manner, effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities. The resident must learn to communicate in a sincere and compassionate manner.

The resident must be able to communicate and teach medical students and fellow trainees in an effective manner and exhibit quality and effective leadership.

**Objective:**
1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
3. Communicate effectively with physicians, other health professionals, and health related agencies.
4. Work effectively as a member or leader of a health care team or other professional groups.
5. Act in a consultative role to other physicians and health professions.
6. Maintain comprehensive, timely and legible medical records.

Teaching Methods:
1. Direct observation.
2. Vascular Grand Rounds.
3. Didactic lectures.
4. Role model.
5. Presentations.
7. Teach medical students and junior residents.

Evaluation Methods:
1. Physician evaluations.
2. Resident evaluations.
3. Patient evaluations.
4. Peer evaluations.
5. Conference evaluations.
6. Review medical records.
7. Review surgical procedure note.
8. Biannual review with Program Director.
9. Clinical Competency Committee.

ACGME Vascular Milestone: ICS1, ICS2, Prof3, PBLI1

Professionalism
Goal: The residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

Resident will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Resident is expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

Objective:
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles.
2. Demonstrate compassion, integrity, and respect for others.
3. Responsive to patients needs that supersedes self interest.
4. Respect for patient privacy and autonomy.
5. Accountability to patients, society and the profession.
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
Teaching Methods:
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

Evaluation Methods:
8. Physician evaluations
9. Resident evaluations
10. Patient evaluations
11. Peer evaluations
12. Conference evaluations
13. Biannual review with Program Director
14. Clinical Competency Committee

ACGME Vascular Milestone: Prof1, Prof2, Prof3

System-Based Practice
Goals: The resident will develop an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation.

Resident will develop a deeper understanding of the above concepts. In addition the resident will develop an understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident should demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems and at the same time apply resource allocation that does not compromise patient care.

Objective:
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

Teaching Methods:
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committee

**ACGME Vascular Milestone:** SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,

**COMPETENCY-BASED GOALS AND LEARNING OBJECTIVES FOR VASCULAR RESIDENT**

**SECOND YEAR VASCULAR RESIDENT (PGY7)**

**Vascular Laboratory Rotation**

**Patient Care**

**Goals:** The resident will refine the ability to convey the reason for and the results of the particular vascular laboratory test to the patient in a clear and concise fashion. Resident must develop and execute patient care plans.

Resident will build upon his/her understanding of vascular disease acquired during the first year of vascular surgery residency in an expansive fashion and integrate this increased knowledge into daily practice and ordering of noninvasive vascular testing.

**Objective:**
1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to obtain and document an accurate and complete history and physical exam from patient, caretaker or outside resources with vascular complaints
3. Interpret non-invasive imaging studies to determine that the requested procedure is appropriate
4. Integration of medical facts and clinical data as the basis for diagnosis
5. Appropriately counsel and educate patients and their families about specific vascular diseases, treatment procedures, options and potential outcomes
6. Know the health care services aimed at preventing vascular problems and maintaining health
7. Work with other medical and surgical disciplines and health care professionals to provide multidisciplinary care to the vascular patient
8. Competently perform all diagnostic and invasive procedures considered essential for the area of practice
9. Understand process development to ensure patient safety
10. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families

**Teaching Methods:**
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lectures
4. Role model
5. Presentation in clinic

**Evaluation Methods:**
1. Physician evaluations
2. Patient evaluations
3. Resident evaluations
4. VSITE exam
5. RPVI exam
6. Teaching rounds
7. Biannual review with program director
8. Vascular Lab case logs
9. Nursing/NP evaluations
10. Audit of clinical practice
11. Simulation
12. Global assessment by Clinical Competency Committee

ACGME Vascular Milestone: PC1, PC2, PC4, PC8, SBP2, SBP3, PBLI1, PBLI3, Prof1, Prof2, ICS1, ICS2

Medical Knowledge

Goals: The resident will display advanced skills in the performance and interpretation of the noninvasive vascular lab studies. The resident will continue to spend half day every other Wednesday observing and performing vascular noninvasive studies, interpreting the results, preparing reports and reviewing current and classic literature. Their progress and knowledge base will be regularly assessed through the administration of regular quizzes related to ultrasound images. They will be expected to take and pass the RPVI exam during their second year. In order to take the exam, minimum numbers are 100 venous duplex scans, 100 carotid artery duplex scans, and 100 physiologic arterial procedures. They are expected to refine their understanding of the physiologic basis of these tests and their limitations, must know when to order the particular tests and demonstrate the ability to accurately interpret their results. Testing will include but not be limited to arterial and venous imaging studies, carotid duplex scanning and renal and visceral artery imaging.

Objective:
1. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavior sciences, as well as the application of this knowledge to patient care
2. Demonstrate knowledge of the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions
3. Demonstrate knowledge of the methods and techniques of angiography, CT scanning, MRI, MRA, and other vascular imaging modalities
4. Engage in the continuous learning and apply appropriate state of the art diagnostic and/or interventional technique to meet the imaging needs of the patient, referring physician and the health care system

Teaching Methods:
1. Direct observation/supervision
2. Vascular Lab Grand Rounds
3. Didactic lecture presentations
4. Role model
5. Reading
6. Presentation in clinic

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Review of Vascular lab interpretation log
5. Review patient charts/case review
6. VSITE Exam
7. RPVI Exam
8. Biannual review with program director
9. Global assessment by Clinical Competency Committee

ACGME Vascular Milestone: MK1, MK2, MK3, SBP3, PBLI2, PBLI3,

Practice-Based Learning and Improvement
**Goals:** To expand their knowledge of noninvasive testing, the resident will review the Association of Program Directors in Vascular Surgery and Society for Vascular Surgery Noninvasive Vascular Laboratory lecture series. This will receive a copy of *Vascular Technology: An Illustrated Review.*

Resident will continue to learn how to effectively utilize institutional educational resources and apply literature and evidence based concepts as well as experimental evidence to their daily practice of vascular surgery. Textbooks, journal articles, and websites pertaining to vascular disorders will be included. The residents will apply this knowledge to also educate other nonvascular residents and medical students on the service.

Resident will demonstrate the ability to use electronic information including hand-held computers, web-based resources, and common electronic databases to support patient care and self-education. They will demonstrate the ability to locate, appraise and assimilate evidence from scientific studies and relate these findings to their patients’ health problems. They will critically review study designs and statistical methods of clinical studies.

Resident will develop and maintain a willingness to learn from failures and use failures to improve both personal performance and the overall process of patient care.

Resident will attend Vascular Conference every Monday morning from 7AM to 9 AM and general surgery Grand Rounds and Morbidity and Mortality Conferences every Thursday.

Resident will consistently analyze their clinical experience of practice, identify areas for improvement and take appropriate educational steps to strengthen these weaknesses. Quarterly attending evaluations will also be used in this assessment. The goal is to improve practice and patient care outcomes.

Resident will take the Vascular Surgery In-Training Exam yearly. They will review their missed questions with the Program Director to gain necessary knowledge.

**Objective:**
1. Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
2. Expected to develop skills and habits to be able to meet the following goals:
   a. Identify strengths, deficiencies, and limits in one’s knowledge and expertise
   b. Set learning and improvement goals
   c. Identify and perform appropriate learning activities
   d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
   e. Incorporate formative evaluation feedback into daily practice
   f. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
   g. Use information technology to optimize learning
   h. Participate in the education of patients, families, students, residents, fellows and other health professionals

**Teaching Method:**
1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Participate in clinical research projects
6. Journal Club presentation
7. Reading

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Patient evaluation
4. Self-evaluation
5. Audit of clinical practice
6. Case log
7. Biannual review with Program Director
8. Clinical Competency Committee

ACGME Vascular Milestones: PBL1, PBL2, PBL3

Interpersonal and Communication Skills

Goals: Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Resident will obtain histories and informed consent, inform patients of their diagnosis and treatment plan, make case presentations, and enter concise consultative and progress notes into the Electronic Medical Record both in the inpatient and outpatient settings.

Resident will work effectively with other members of the healthcare team in the delivery of seamless care and develop effective communication and interaction with the ancillary support staff.

Resident will build upon his/her fundamental understanding of the above concepts. In addition the resident will develop more comprehensive communication skills with sub-specialty services.

Resident will make oral presentations at Vascular Morbidity and Mortality Conference in a clear and concise fashion.

Goals are to develop a good bedside manner, effective communication and listening skills, teach residents to act in the best interest of the patient, and to demonstrate sensitivity to the patient’s ethnicity, age, and disabilities. The resident must learn to communicate in a sincere and compassionate manner.

Resident must be able to communicate and teach medical students, interns and rotators in an effective manner and exhibit quality and effective leadership.

Objective:

1. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
2. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
3. Communicate effectively with physicians, other health professionals, and health related agencies
4. Work effectively as a member or leader of a health care team or other professional group
5. Act in a consultative role to other physicians and health professions
6. Maintain comprehensive, timely and legible medical records

Teaching Methods:

1. Direct observation
2. Vascular Grand Rounds
3. Didactic lectures
4. Role model
5. Presentations
6. Lead rounds
7. Teach medical students and junior residents

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Review medical records
7. Review surgical procedure note
8. Biannual review with Program Director
9. Clinical Competency Committee

ACGME Vascular Milestone: ICS1, ICS2, Prof3, PBLI1

Professionalism

Goals: The residents will demonstrate personal integrity, honesty, accountability, respect, compassion, patient-advocacy and dedication to patient care and well-being that supersedes self-interest and demonstrate a commitment to excellence and continuous professional development.

Resident will demonstrate commitment to ethical principles pertaining to the provision of vascular care, patient confidentiality, and informed consent and demonstrate sensitivity and responsiveness to patient’s culture, age, gender and disabilities.

Resident will demonstrate respect and a professional demeanor in relationship with patients, families, colleagues and all others involved in patient care.

Resident will develop lifelong learning skills through the application of basic science concepts to clinical management, critical reading and critical thinking.

Resident are expected to demonstrate a deeper understanding of the ethical, economical and legal aspects of vascular care.

Objective:
1. Demonstrate a commitment to carry out professional responsibilities and an adherence to ethical principles
2. Demonstrate compassion, integrity, and respect for others
3. Responsive to patients needs that supersedes self interest
4. Respect for patient privacy and autonomy
5. Accountability to patients, society and the profession
6. Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

Teaching Methods:
1. Direct observation
2. Role model for another resident or fellow
3. Role model
4. Presentations
5. Rounds

Evaluation Methods:
1. Physician evaluations
2. Resident evaluations
3. Patient evaluations
4. Peer evaluations
5. Conference evaluations
6. Biannual review with Program Director
7. Clinical Competency Committee

ACGME Vascular Milestone: Prof1, Prof2, Prof3

System-Based Practice
**Goals:** The resident will develop an advanced understanding of the local, regional, national and international economic, societal, and clinical impact of vascular disease and how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and society as a whole.

Resident will understand the organization, supervision and coordination of the delivery of vascular care both in and out of the hospital setting and the benefits of a multidisciplinary approach to the delivery of vascular care.

Resident should be able to arrange for appropriate consults for vascular patients.

Resident should be able to arrange for appropriate support services commonly used by vascular patients such as social service, discharge planning, and Physical Medicine rehabilitation.

Resident will develop a deeper understanding of the above concepts. In addition the resident will develop an understanding of the patient’s environmental factors affecting the healthcare system and how to advocate for quality patient care and assist their patients in dealing with the inherent complexities of the healthcare system.

Resident should demonstrate knowledge about cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems and at the same time apply resource allocation that does not compromise patient care.

**Objective:**
1. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
2. Work effectively in various health care delivery settings and systems relevant to their clinical specialty
3. Coordinate patient care within the health care system relevant to their clinical specialty
4. Incorporate considerations of costs awareness and risk-benefit analysis in patient and/or population-based care as appropriate
5. Advocate for quality patient care and optimal patient care systems
6. Work in inter-professional teams to enhance patient safety and improve patient care quality
7. Participate in identifying system errors and implementing potential systems
8. Demonstrate the ability to apply knowledge of the roles of different specialists and other health care professionals in overall patient management

**Teaching Methods:**
1. Direct Observation
2. Didactic lectures
3. NSQIP meetings
4. Multidisciplinary conferences
5. Role model

**Evaluation Methods:**
1. Physician evaluations
2. Resident evaluations
3. Biannual review with Program Director
4. Clinical Competency Committees

**ACGME Vascular Milestone:** SBP1, SBP2, SBP3, PBLI1, PBLI2, PBL3,

**Training in the Non-Invasive Vascular Laboratory for Vascular Residents**

**Introduction**
The vascular surgeon must be well trained in all aspects of the Vascular Lab since the noninvasive diagnostic laboratory provides enough information for clinical decision-making, documentation of patient outcomes and research.

Beginning in 2014, physicians applying for the Vascular Surgery Qualifying Examination will be required to hold the RPVI credential by the Association of Program Directors in Vascular Surgery (APDV), and a growing number of current trainees voluntarily are seeking certification.

The two options are:

a) RPVI (Registered Physician in Vascular Interpretation) certification offered by the American Registry of Diagnostic Medical Sonographers.
b) RVT (Registered Vascular Technologist) certification offered by the American Registry of Diagnostic Medical Sonographers.

Objective of vascular Lab rotation:
Upon completion of the OSU Vascular Residency program, residents will have the appropriate skills and knowledge to qualify for the RPVI and/or RVT certification examination. Residents are urged to take either one of the examinations soon after completion of their vascular residency program. Residents are required to understand the physiologic basis of these tests and their limitations, know when to order noninvasive tests, which to select and how to interpret the results of testing.

List of topics and tests with which the Resident must be familiar with:
Vascular physiology and basic ultrasound to include physiologic tests, ultrasound physics, and transducer technology.
Diagnostic criteria and technical limitations for each test, and appropriate indications for all non-invasive tests.
Carotid & Vertebral Duplex color flow imaging with familiarity with local and national criteria for hemodynamically significant stenosis.
Lower extremity arterial physiologic testing including exercise testing
Lower extremity arterial imaging and Bypass graft surveillance
Upper extremity arterial imaging
Aortic imaging and its branches
Lower extremity imaging for deep venous thrombosis
Lower extremity imaging for chronic venous insufficiency
Lower and upper extremity venous imaging for arterial revascularization
Upper extremity venous physiologic testing
Upper extremity venous imaging for venous thrombosis
Dialysis access physiologic testing
Dialysis access imaging

Components of lab rotation:
2. Basic ultrasound physics (Kremkau Reference Book in Vascular Lab)
3. Some hands-on operation of equipment in the lab supervised by sonographers.
4. Supervised test interpretation.
5. Study of classical papers and texts, current literature and papers from the Vascular Lab at OSU on laboratory testing. All reading material is available through the Vascular Lab or the Medical Director. Reading file maintained in Vascular Lab.
6. Knowledge of quality assurance of the lab and accreditation process. Go through the ICAVL application in the lab.
7. CD’s/DVD’s of seminars through APDVS and other organizations are available.

Schedule of learning:
Year one
July & August: Manual Review of Vascular Technology; time in the VL following sonographers in lab as well as portable tests. Reply to quiz images when sent. START keeping a log of all tests that are being ready by you and/or read with you by Faculty.

September/October/November: Read Basic ultrasound physics (Kremkau Reference Book in Vascular Lab); spend time in the VL watching tests getting done. Reply to quiz images when sent. Read Copied pages from Miele’s book given to you.

December/January/February: Study of classical papers and texts, current literature and papers from the Vascular Lab at OSU on laboratory testing. All reading material is available through the Vascular Lab or the Medical Director. Reading file maintained in Vascular Lab. Reply to quiz images when sent. Start reading tests on your own patients and bring lists of those read to VL Director for over-reading.

March/April/May/June: CD’s/ DVD’s of seminars through APDVS and other organizations are available; some hands on scans in the VL. Reply to quiz images when sent. Start reading tests on your own patients and bring lists of those read to VL Director for over-reading.

Year two:
Continue to keep a log of all tests that are being ready by you and/or read with you by Faculty.
July/August/September: hands-on operation of equipment in the lab supervised by sonographers; learn all criteria for our interpretations; learn about all knobs/buttons on scanners and symbols on the screen when reading.
October/November/December: Reply to quiz images when sent. Start reading tests on your own patients and bring lists of those read to VL Director for over-reading. Start reading previous sample RPVI examination questions. Read Copied pages from Miele’s book given to you.
January/February/March: Reply to quiz images when sent. Start reading tests on your own patients and bring lists of those read to VL Director for over-reading. Start reading previous sample RPVI examination questions.
April/May/June: Reply to quiz images when sent. Start reading tests on your own patients and bring lists of those read to VL Director for over-reading. Start reading previous sample RPVI examination questions.
Take the RPVI examination after you have logged over 500 read tests either in November/December or May of your second year.

Duration of rotation:
a. Time of rotation to be determined by the Division Director.
b. Each trainee currently has a designated one day every other week for the Vascular Lab/research projects.
c. Credentialing: Total number >500 tests for interpretation experience.
Minimum number of tests is 100 venous duplex examinations, 100 carotid artery duplex examinations, 100 peripheral arterial duplex and 100 physiologic arterial examinations.
The number for visceral examinations and arterial duplex examinations is 75, and transcranial duplex examinations (TCD) is also 100 although it is unlikely that this latter number will be obtained under current circumstances.
d. Log or other records must be maintained by the Resident and a copy submitted to the Medical Director of the Lab prior to completion of the fellowship. No validation of these numbers will be provided unless this is done.
e. Any requests from accreditation agencies or outside hospitals for verification of credentials during Residency will not be given unless the curriculum has been satisfactorily completed.
f. It is preferred that the Resident acquire at least 15 hours of CME in the vascular lab approved by ARDMS or ICAVL. The Lab at OSU will make an attempt to provide either DVD/CD’s which can be viewed and appropriate credits can then be sent for or a meeting.
V. POLICY AND PROCEDURES

A. Appointment, Eligibility, Selection, and Promotion of Vascular Residents

Eligibility:

Residents within graduate medical education training programs must sign a Limited Staff Agreement prior to beginning their residency program, and every year. This agreement is uniform for all house staff, and is modified and approved annually by the Graduate Medical Education Committee with input from the Resident Advisory Committee. This agreement is updated each spring based on changes in university benefits, medical staff rules/regulations, and ACGME or other accreditation/ regulatory requirements. Please see the OSUMC GME Policy on Eligibility Requirements for Appointment into Residency and Fellowship Programs on the GME website. The Program Director complies with the criteria for resident eligibility as specified in the Institutional Requirements.

Applicants eligible for appointment must meet the following qualifications to maintain compliance with the Institutional Requirements published by the ACGME.

- All required clinical education for entry into ACGME-accredit fellowship programs must be completed in an ACGME-accredited residency, or in an RCPSC-accredited or CFPC-accredited residency program located in Canada.
- Graduates must have an MD or DO degree from an institution accredited by the Liaison Committee of Medical Education (LCME) or by the American Osteopathic Association.
- Graduates of medical schools in countries other than the United States or Canada must present evidence of final certification by the Educational Commission for Foreign Medical Graduates (ECFMG).

Applicants must be eligible for either a training certificate or a permanent medical license as granted by the State Medical Board of Ohio. Prior to appointment into the program, applicants must have either an acknowledgment letter of receipt of training certificate application, a newly issued or renewed training certificate, proof of receipt of application for permanent Ohio medical license, or permanent Ohio medical license.

Applicants who are non-US citizens must hold Permanent Resident Status, be eligible to apply for or hold a J-1 Visa. The institution and training programs agree to assist the resident as necessary with completion of immigration paperwork but the ultimate responsibility for its completion remains with the resident. Applicants must apply for and receive limited staff privileges at OSU Hospitals as defined in the OSU Hospital Medical Staff Bylaws and Rules and Regulations. Prior to beginning the program the individual must have been granted either Limited Staff Privileges or Temporary Limited Staff Privileges.

Specific Requirements for Vascular Residency:

- Must have received primary degree, BS or BA
- Must have received medical degree from an ACGME credentialed medical school
- Must have finished an ACGME credentialed five year residency in General Surgery
- Must be registered with National Residency Match Program
- Must apply thru ERAS
- Must have taken ABSITE and supply transcript
- Must have taken USMLE and supply transcript
- Must have letter of reference (3)
- If a foreign graduate, must be in good standing with ECFMG and have J1 Visa – ECFMG certificate
- Transcript
- Photograph
- MSPE if possible
- Personal Statement
• COMLEX transcript if applicable

a. Selection of Vascular Residents:
Qualified applicants are reviewed by the Program Director on the basis of preparedness, ability, aptitude, academic credentials, communication skills, and personal qualities such as motivation and integrity. The Program Director assures the all requirements for selection, evaluation and promotion of residents have been met. The Program Director may receive help in scanning these documents from the Associate Program Director and other attending staff at his/her discretion. Applicants will either be offered an interview or sent a rejection letter.

All applicants are interviewed by Vascular Surgery physicians and residents for 20 minutes. At the conclusion of each individual interview, the interviewee rates the applicant by completing an evaluation form. At the end of the interview season all physicians and residents composite a list of all applicants interviewed with their scores a meeting is held to discuss each candidate and final rank. The Program Director composites a list of all applicants in order by their score and creates a final rank list, the final rank list is submitted to the National Residency Matching Program.

The Department of Surgery is an equal-opportunity employer. It does not discriminate with regard to sex, race, age, religion, color, national origin, disability, or veteran status.

b. Appointment of Vascular Residents:
Residents are matched to the Program through the NRMP.

c. Promotion of Vascular Residents:
In order to promote to the second year of the Vascular Surgery residency or to graduate from the program, Vascular Residents must clearly demonstrate the following at the conclusion of their training:

• Acquisition of a solid foundation of fundamental surgical knowledge prior to progression in the program to the level of independent patient management and operative care;

• Mastery of specific clinical objectives as outlined in II. B.;

• A high level of professionalism, interpersonal communication skills, ethical behavior, and sensitivity to a diverse patient population;

The Program Director will evaluate each Vascular Resident’s progress semi-annually and annually to decide whether their performance is appropriate for their level of training, and whether it warrants advancement at the end of the academic year to the next level of responsibility or graduation. Under no circumstance will either party terminate employment without providing the other party an opportunity to discuss and review any dissatisfactions or grievances that may exist. The Program Director shall notify the resident in writing if he/she will not be advanced or if he/she will not receive a certificate of completion. Notification will occur at least four months prior to the end of the resident’s contract. However, if the primary reason(s) for the non-renewal occurs within the four months prior to the end of the contract, the Program Director will ensure that resident is provided with as much written notice of the intent not to renew/graduate as the circumstances will reasonably allow, prior to the end of the contract. Residents may implement grievance procedures when they have received a written notice of intent not to renew their contract.

The “Right of Due Process” is described in The Ohio State University Wexner Medical Center’s Limited Staff Agreement. Please also see the OSUMC GME Policy on “Resident Due Process, Fair Hearing, and Grievance” and “Administrative Actions and Dismissal” on the GME website.

B. Academic Adverse Action
The Program Director has the primary responsibility of monitoring the resident’s progress, and to take appropriate academic and administrative adverse actions based on the resident’s performance and behavior. The Program Director also has a responsibility to remove from clinical responsibilities any resident whose actions may place patients, peers, or others at risk. Concerns regarding a resident’s performance or behavior that may lead to an adverse action may be raised by a peer, any physician member, any Program Director, any department chair, another member of the hospital and/or office staff, an administrator, program coordinator, a patient, the risk management team, or any other person familiar with the resident’s performance and activities.

Vascular residents may be subject to adverse actions for failure to fulfill general academic, clinical, ethical, or administrative requirements and expectations of the program or institution as outlined in various program policies, institutional policies, hospital Medical Staff Bylaws and Rules and Regulations, Health System policies, College of Medicine policies, University policies, or the Limited Staff Agreement. The Program Director, after consultation with the Chief Medical Officer or Associate Dean for GME, may proceed under this policy or the Medical Staff Bylaws to address deficiencies in resident performance. This policy is typically used to address situations involving deficiencies related to medical knowledge, academic performance, and administrative issues that are not covered under the Medical Staff Bylaws. The Medical Staff Bylaws process is typically reserved for significant clinical issues that relate to quality of care and/or patient safety, significant issues of ethics and professionalism, or non-compliance with state or federal law.

Levels of adverse actions include the following and are described more fully in the Academic and Administrative Adverse Actions Policy located on the GME website: Focused-review, Probation, Suspension, Non-promotion, Non-renewal, and/or Termination. Specific adverse actions are determined on a case-by-case basis. The Program Director is not required to use a stepwise approach for determining specific adverse actions. For example, a Program Director is not required to place a resident on focused review prior to probation or probation prior to suspension.

The Program Director must consult with the Resident Review Committee prior to taking adverse actions. The resident will have the opportunity to appear before the committee or submit a written comment regarding the adverse action. A resident must appeal an adverse action in writing within fourteen (14) days of the receipt of the written appeal and will vote on whether or not to uphold, modify, or reverse the original adverse action. The decision of the committee is final. (See GME policies on “Academic and Administrative Adverse Actions” and “Resident Due Process” on the GME website)

C. Benefits
Vascular Residents in the Department of Surgery are entitled to benefits and leave as specified in the OSU Wexner Medical Center Limited Staff Agreement.

Residents may attend one meeting per year in addition to any meeting at which they have a paper accepted for presentation. The GME office provides $55 in meals per month to residents who take call. Please keep in mind the American Board of Surgery requirements of no fewer than 48 weeks of full-time clinical experience in each residency year; this leaves one week per year for meetings/academic. For independent programs (5+2) a total of 96 weeks of full-time clinical activity is required over the two years of vascular surgery training. For documented medical conditions, including pregnancy and delivery, directly affecting the individual (i.e. not family leave) the ABS will accept a total of 94 weeks.

D. Certification
Residents who plan to seek certification in Vascular Surgery by the American Board of Surgery should communicate with the office of the board regarding the full requirements of certification.

E. Dealing with Stress
The stress of the Vascular Surgery Residency combined with other personal distresses may occasionally cause deterioration in well-being and an interruption in the resident’s ability to perform his/her or her duties. During these times, residents may make use of the OSU Faculty and Staff Assistance Program, a free and confidential counseling service. The Department has additional resources for residents and they are encouraged to meet with the Program Director when they are in need of assistance.

Residents have access to many different fitness facilities on campus including the new Recreation and Physical Activity Center (RPAC).

F. Dismissal

In order to be promoted or graduated, Vascular Surgery Residents must clearly demonstrate the following at the level appropriate to their year of training:

- Acquisition of a solid foundation of fundamental surgical knowledge prior to progression in the program to the level of independent-but-supervised patient management and operative care.
- Mastery of specific clinical objectives in as outlined in the Vascular Surgery Program Goals and Objectives.
- A high level of professionalism, interpersonal communication skills, ethical behavior, and sensitivity to a diverse patient population.

The Program Director and Vascular Surgery physicians evaluate each resident’s progress semi-annually and annually to decide whether the resident’s performance is appropriate for their level of training, and whether it warrants advancement/graduation at the end of the academic year.

The Program Director may address deficiencies related to medical knowledge, academic performance, or administrative issues. After consultation with the Chief Medical Officer or Associate Dean for GME, the Program Director shall notify the resident in writing if he/she will not be advanced to the next higher level or if he/she will not receive a certificate of completion. Notification will occur at least four months prior to the end of the resident’s contract (usually by March 1). However, if the primary reason(s) for the non-renewal occurs within the four months prior to the end of the contract, the Program Director will ensure that the resident is provided with as much written notice of the intent not to renew as the circumstances will reasonably allow, prior to the end of the contract. (The Program Director must also provide written notice to the Chairman and the Associate Dean for GME.)

Under no circumstance will either party terminate employment without providing the other party an opportunity to discuss and review any dissatisfactions or grievances that may exist. Residents will have an opportunity to appear before the Resident Review Committee or submit a written comment to the committee regarding non-promotion or non-renewal. Residents may implement grievance procedures when they have received a written notice of intent not to renew their contracts.

The “Right of Due Process” is described in The Ohio State University Wexner Medical Center’s Limited Staff Agreement. (Also see OSUMC GME policies on “Resident Due Process” and “Administrative Actions and Dismissal”)

G. Dress Code

Vascular Surgery Residents are expected to be well-groomed and wear a clean, long white lab coat or gray fleece jacket when not in the operating room. When feasible, residents should be dressed in professional attire (including ties for male residents) underneath their lab coat. The wearing of scrubs alone should be limited to the operating room, and scrubs should never be worn in public.
Perioperative Attire Policy:

1. Please respect the designated restricted areas and abide by the policy governing each level of restriction (UNRESTRICTED, SEMI-RESTRICTED and RESTRICTED). For RESTRICTED areas, please remember that our policy prohibits the wearing of undergarments under the scrub shirt that are not completely covered by the scrub shirt (i.e., turtlenecks, long sleeved shirts and crew neck shirts).

2. Please abide by our policy regarding the use of proper hair coverings, including facial hair coverings. Hoods will be worn to cover beards; all head and facial hair should be covered with a clean, disposable lint-free hat or hood. If cloth hats are worn, they must be covered by a disposable bouffant hat. Vendors must use the red bouffant hats at all times.

3. When leaving the SEMI-RESTRICTED or RESTRICTED areas, a clean full-length coat, that is closed, should be worn over the scrub suits. The expectation is for scrub suits to be changed at least on a daily basis.

4. Masks should be removed and discarded after each case or when wet/soiled and should not be left hanging around the neck.

5. Jewelry should be kept to a minimum. Scrubbed personnel should not wear any jewelry on hands or arms; earrings must be contained within the hair cover.

The policy in its entirety can be found at:
https://onesource.osumc.edu/departments/PerioperativeServices/Documents/UHRossPolicies/Perioperative%20Attire%20UH.pdf

H. Due Process

Promotion and re-appointment of a resident as well as completion of a training program is contingent upon the resident's satisfactory performance in meeting knowledge, performance and behavior standards and expectations as set by the institution and program within various program, institutional and University policies, and the annual Limited Staff Agreement. If a resident does not satisfactorily meet the standards and expectations, the resident may be subject to a variety of adverse actions as outlined in the Graduate Medical Education Policy entitled “Academic and Administrative Adverse Actions.” The resident has the right to challenge the accuracy of a written or electronic evaluation of his/her performance. As a first step, the resident should meet with the Program Director to discuss the evaluation. The “Right of Due Process” is described in The Ohio State University Wexner Medical's Limited Staff Agreement. More information on Resident Due Process may be found on the GME website in the policy noted above.

I. Duty Hours

“Duty Hours” are defined as all clinical and academic activities related to the training program including patient care (both inpatient and outpatient), administrative duties (i.e., completion of paperwork or dictation of charts), the provision for transfer of patient care (i.e., check-in and check-out), time spent in-house while on call, and scheduled academic activities (i.e., required academic conferences). Duty hours also include any research activity that is part of the required curriculum for the training program. Duty hours do not include reading time and preparation time spent when not on duty. It is the resident’s responsibility to appear for duty appropriately rested and fit to provide the services required to our patients.

Duty will be limited to 80 hours per week (averaged over a four-week period, inclusive of all in-house call activities). Residents will keep monthly time cards to monitor compliance with the 80-hour work week regulation, and these must be turned in promptly at the end of each month for review by the Program Director. Work schedules are designed so that, excluding exceptional patient care needs, residents have at least one day out of seven free of all educational and in-patient activities (averaged over a four-week period, inclusive of home call responsibilities). “One day” is defined as one continuous 24-hour period. Adequate time for rest and personal activities will be provided. This will consist of a ten hour time period between all duty periods.
No new patients may be accepted after 24 hours of continuous duty. A new patient is defined as any patient for whom the surgery service or department has not previously provided care. The resident should evaluate the patient before participating in surgery.

The Vascular Surgery Residency program is committed to the continuity of care of patients. However, responsibilities for continuity of patient care are not to be automatically discharged at specific times. Continuity of care takes precedence, without regard to the time of day, day of the week, number of hours already worked, or on-call schedules of the residents. Other unusual circumstances the resident may need to stay would be a patient with whom the resident operates/intervened that day needs to return to the OR, or needs to be transferred to the ICU or a lower level of care, or is in the ICU and is critically unstable, a patient or patient’s family with whom the resident needs to discuss limitation of treatment/DNR/DNI orders for critically ill patients they operated on or if a declared emergency or disaster for which the resident is included in the disaster plan is able to perform high profile, low frequency procedures necessary for competence in the field. Resident must appropriately hand over the care of all other patients to the team responsible and document the reason for remaining to the care for the patient in question and submit that documentation in every circumstance to the Program Director. The Program Director will review each submission of additional service and track both individual residents and program-wide episodes of additional duty. At the same time, patients have a right to expect a healthy, alert, responsible, and responsive physician dedicated to delivering effective and appropriate care. The Program Director will make sure an environment is established and maintained which is optimal for both patient care and resident education, one in which undue stress and fatigue among the residents is avoided. The resident is responsible for notifying the Program Director and/or the other physicians on service if he/she does not feel fit for performance of duties due to illness or fatigue. The resident should obtain a round trip cab voucher from the GME office if not able to drive safely home. The physicians have a responsibility to recognize signs of fatigue and sleep deprivation and take appropriate correction action as well as come into work if needed. The division physicians are continually updated on duty hour requirements and the program’s monitoring methods, as well as at our annual fellowship program meeting. At the end of every month the resident must submit a "Resident Time Card" to the Program Director which logs hours per day, hours per week, monthly totals, numbers of days in the clinic, as well as average hours per week. Quarterly the residents complete an “Attestation of Compliance with Duty Hours” form and with that form the Program Director completes the “Quarterly Duty Hour Report” form. Prior to graduation the residents complete a computer module in IPM (Introduction to the Practice of Medicine system base) regarding sleep deprivation. This must be completed for the resident to graduate from the fellowship program.

The resident is responsible for notifying the Program Director within 24 hours that he/she exceeds ACGME duty hour guidelines. The Program Director is committed to strict adherence of the duty hour rules. If they are violated, the Program Director will immediately determine the cause of the violation and seek to guarantee that a solution is reached which will prevent recurrence, whether it is the fault of the call schedule, physician disregard for the policy, or of resident carelessness or error. The Program Director, Associate Program Director and Program Coordinator review the clinical schedule and call schedule to ensure compliance with days off, which are at least one of seven, and frequency of call

The educational goals of the program and learning objectives of the resident will not be compromised by excessive reliance on residents to fulfill institutional obligations. Support services are such that residents do not spend an inordinate amount of time in non-educational activities that can be discharged properly by other personnel. The Program Director will ensure that residents are provided appropriate back-up support when patient care responsibilities are especially difficult or prolonged, or if unexpected circumstances create resident fatigue sufficient to jeopardize patient care. The program is committed to and responsible for promoting patient safety and residents well-being in a supportive educational environment.

**Protocol for Duty Hour Violations:**
If resident does remain on duty beyond their scheduled hours and violate a duty hour rule, they are instructed to notify the program director within 24 hours. This rule is explained explicitly during their orientation session at the beginning of fellowship training. When completing their end of rotation monthly duty hour form, they must indicate which duty hour rule they violated, provide an explanation describing why they violated a duty hour rule, and indicate whether or not they notified the Program Director.

The on-call physician also monitoring that the resident does not violate any duty hours. Our physicians are always available 24/7 to handle patient care needs if the resident is coming close to violating duty hours or is fatigued.

**J. Policy ensuring Residents have adequate rest (PGY-6 and PGY-7):**
To ensure that residents have adequate rest between duty periods, the following policies have been adopted regardless of year of training:

- Residents are responsible for informing their superiors when excessive work hours will cause them to be out of compliance. Proactive attention should be paid to work hours and days off.
- Residents must take personal responsibility for and physicians must promote behaviors that lead to:
  1. Assurance for fitness of duty.
  2. Assurance of the safety and welfare of patients entrusted in their care.
  3. Management of their time before, during and after clinical assignments.
  4. Recognition of impairment (i.e. illness or fatigue) in self and peers.
  5. Honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.

Adequate sleep facilities are in place and our resident fatigue and stress policy encourages sleep hygiene and the utilization of strategic napping and post-call naps.

**K. At - Home Call:**
Vascular Surgery residents take home call which is defined as call taken from outside the assigned institution. A trainee may be expected to return to the assigned institution as needed during home call. The frequency of home call is not subject to the every third night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks. However, residents on home call must be provided with one day in seven free of all educational and clinical responsibilities when averaged over a four-week period. When a resident is called into the assigned institution while on home call, the hours the resident spends in-house are to be counted toward the 80-hour work limit. Time spent at the institution while on home call must not be excessive or so frequent as to preclude rest and reasonable personal time for each trainee or to approximate in-house call. Resident are permitted to return to the hospital while on at-home call to care for new and established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum will not initiate a new “off-duty period”. The Program Director and the physicians must monitor the demands of home call and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

**L. Moonlighting:**
Employment outside the Medical Center (i.e., moonlighting) when the resident is "off-duty" will not be permitted when residents are on clinical services. It is up to the Program Director to decide whether moonlighting will interfere with a resident's responsibilities and performance.

Because residency training in surgery is a full-time endeavor, activities outside the educational program must not interfere with the residents’ performance in the educational process, as determined by the Program Director, nor must they interfere with the residents’ opportunities for
rest, relaxation and study. The resident is required to be rested and alert while performing assigned duties.

M. Evaluations
Formative Evaluation of Vascular Resident:
Vascular Surgery residents are evaluated semi-annually and annually by the Program Director, Vascular Surgery physicians, Clinical Case Managers, OR staff, NP’s, PA’s, hospital vascular unit personnel, patients, and peers. Vascular Surgery Milestone evaluations are objective assessments of competency in patient care, medical knowledge, practiced based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practices. All evaluations are anonymous and most are completed using a web-based system, e-value but some rotators who cannot complete eValue evaluations complete the same evaluation but in a paper form. Documentation is done to show progressive resident performance improvement appropriate to educational level of Vascular Surgery resident. Clinical Competency Committee meets semi-annually and annually to reviews all residents evaluations, they prepare and assure the reporting of Milestones evaluations of each resident to the ACGME, as well as advise the Program Director regarding residents progress, including promotion, remediation, and dismissal. Residents are also required to take the Vascular Surgery In-Training Exam which is given annually.

Every six months the Program Director and Vascular Surgery Resident hold a meeting. Subjective and objective criteria are reviewed at this time including: all milestone evaluations, 360 degree competency evaluations, dictation completion, conference attendance (70% attendance expected), conference presentations, duty-hour card submission, progress on the research project, etc. Operative log entries are reviewed monthly and annually to be sure the resident is obtaining the appropriate case volume, breadth, balance, and complexity, and to verify that cases are being entered concurrently to ensure residents in the same program has comparable cases. After these meetings, a formal written confidential evaluation of performance with feedback is provided to the resident and a copy is added to their Portfolio. As well as the Resident is provided semi-annually and annually the aggregate reporting score of their ACGME Milestone (Evalute and Peer) which helps them evaluate their own performance checking to make sure they are at the appropriate level in their education. Additional meetings are scheduled if areas of deficiency are identified. The evaluations of resident performance are accessible for review by the resident, in accordance with institutional policy. Residents who wish to discuss their evaluations with the Program Director may do so at any time.

Summative Evaluation of Resident:
The Vascular Surgery ACGME Milestones are used as one of the tools to ensure the resident is able to practice core professional activities without supervision upon completion of the program. At the end of the training the Program Director provides a summative evaluation on the graduating resident upon completion of the program. This evaluation is a permanent record maintained by the institution, and is accessible for review by the resident. The evaluation documents the resident’s performance during the final period of education and verifies that he/she has demonstrated sufficient competence to enter practice without direct supervision.

Resident Performance Portfolios:
A personal performance portfolio is maintained on each resident. The Performance Portfolios are located in the Residency Coordinator’s office. Residents are free to review their portfolio at any time. Portfolios contain the following information:

A. Evaluations
B. 6-month, 12-month, 18-month and 24-month evaluation letters
C. Mentor meeting progress reports (which include resident goals & objectives)
D. Research (copies of abstracts and research presentations)
E. Current C.V.
F. Operative Logs
G. Vascular Interpretation Logs
H. Duty hour cards
I. Citizenship records
J. Committee participation
K. Evidence of professionalism
L. Record of teaching efforts
M. Information on courses and meetings attended (if applicable)
N. Vascular In-Training Exam score and report

Physician Evaluation:
Residents evaluate the physician performance annually in Evaluate, aggregate scores of all the physicians are reviewed at the Annual Program Evaluation Meeting. The Residents also provides an annual written confidential evaluation to the Residency Coordinator, with challenges and strengths as well as improvement opportunity suggestions. The Program Director reviews the physician evaluations and approves the continued participation of program physician based on these evaluations. The physicians are also evaluated annually by the Program Director on their clinical teaching ability, commitment to the educational program, clinical knowledge, professionalism, and scholarly activities.

Program Evaluation and Improvement:
The Program is evaluated annually and anonymously by the physicians and residents, and results from this annual evaluation and other assessments are used to improve the program. The Program Evaluation Committee actively participate in planning, developing, implementing and evaluating the educational activities of the program, they address areas of non-compliance with ACGME standards and review the program annually using evaluations of physicians, residents and others. The program monitors and track operative experience, resident performance, physicians performance, physicians development, graduate placement, scholarly activities, VSITE exams, ABS passing rates, duty hours, reviews progress on the previous year’s action plan, review and make recommendations for revision of competency-based curriculum goals and objectives, review ACGME correspondence regarding the program, interview data (# applied, # interviewed), call/clinic schedule, rotation schedule, didactic schedule, and our letter of expectation provided to residents to ensure the program quality. The results at our Annual Program Evaluation Meeting are discussed and documented and if any deficiencies are found the program prepares a written plan of action to document initiatives to improve performance in those area as well as delineate how they will be measured and monitored. The action plan is reviewed and approved by the teach physicians and documented in our meeting minutes. Residents and physicians have the opportunity to evaluate the program confidentially and in writing at least annually.

N. Filing an Incident Report
From time to time, residents will have a needle stick or other blood/fluid exposure which requires screening for various infectious diseases. If an incident happens to a resident during work hours, Employee Health should be contacted immediately (293-8146). Protocols from the CDC are in place in Employee Health for screening and potential treatment depending on the type and extent of exposure. If the incident happens after hours or on the weekend, contact the Emergency Department for further instructions. Another good resource for information is the hospital Department of Epidemiology (293-5666).

O. Grievance Process
Residents are encouraged to communicate their complaints and concerns so that options can be discussed and resolutions can be reached. The appropriate avenues for airing grievances are: 1) speaking with the Program Director, 2) speaking with an assigned mentor, or 3) presenting concerns at a Resident Committee meeting. Residents are encouraged to set up a meeting with the Program Director and to provide the Program Director with any written documentation supporting their grievance. If after meeting with the Program Director the resident feels his/her grievance was not resolved satisfactorily, he/she may meet with the Vice Chairman for Surgical Education (Mark W. Arnold, M.D., 395 W. 12th Avenue, 293-8703). If necessary, the resident
may then meet with the Chairman of the Department of Surgery, and/or with representatives of the GME office. The Program Director ensures compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution.

P. Malpractice Insurance
Physicians and resident (clinical house-staff) are insured by the Ohio State University Self Insurance Program (UNIP).

Q. Miscellaneous Vascular Resident Responsibilities
Residents are required to:

A. Complete 4 required Computer Based Learning (CBL) compliance modules annually (for the purpose of achieving compliance with applicable government and professional standards and requirements) HIPPA Privacy Research, HIPPA Privacy & Security, Annual Infection Control, and Annual Universal Protocol;
B. Complete 2 required modules in the Introduction to the Practice of Medicine (IPM) prior to graduation, Sleep Deprivation and The Impaired Physician;
D. Flu shot annually;
E. Renew PPD annually;
F. Sign Limited House Staff Agreement annually;
G. Renew Ohio Training Certificate annually, or obtain a permanent Ohio license;
H. Renew temporary DEA license through the hospital annually (or obtain a permanent DEA license);
I. RPVI exam – all 2014 vascular surgery graduates will be required to have their Registered Physician Vascular Interpretation (RPVI) credentialing before they can sit for their Vascular Surgery Qualifying Examination.
J. Attend CREW management training

R. Non-Discrimination Policy
The Department of Surgery is part of the College of Medicine at the Ohio State University Wexner Medical Center is an equal-opportunity employer.

S. On-Call Duties
Vascular Surgery Residents take home call which is defined as call taken from outside the assigned institution. A trainee may be expected to return to the assigned institution as needed during home call. The frequency of home call is not subject to the every third night limitation. However, trainees on home call must be provided with one day in seven free of all educational and clinical responsibilities when averaged over a four-week period. When a trainee is called into the assigned institution while on home call, the hours the trainee spends in-house are to be counted toward the 80-hour work limit. Time spent at the institution while on home call must not be excessive or so frequent as to preclude rest and reasonable personal time for each trainee or to approximate in-house call. The Program Director and the physicians must monitor the demands of home call and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

T. Record Completion
Residents must record in a timely and accurate manner in compliance with the rules established by the hospital.

1. **Operative Notes**: Operative notes should be dictated by the resident who is counting the surgery in his/her operative log, and should be dictated immediately after the procedure’s completion. Failure to do so within 24 hours will result in suspension of the attending physician’s operating room and admitting privileges. A brief operative note should also be written in the chart in the OR prior to leaving the room. Information should include pre-operative diagnosis, post-operative diagnosis, procedure, surgeons name, etc.

2. **Discharge Instructions**: Discharge instructions are entered (in IHIS) by both the hospital clinical case manager and resident. They are begun when the patient is admitted, and are completed prior to discharging the patient. The Vascular Resident is responsible for overseeing the documentation of the diagnoses and medication reconciliation on the discharge instructions.

3. **Discharge Summaries**: The Vascular Resident oversees the dictation of the discharge summary by the General Surgery Resident rotating to the Vascular Service. Information should include the reason for admission, patient’s condition, hospital course, diagnosis, medications, where the patient is going upon discharge, etc. Residents can either dictate on the day of discharge when the chart is still on the unit, or several days later when the charts are assigned to residents for dictation and are once again available in Medical Records. Residents have 10 days to dictate from the date they are assigned the chart. Failure to dictate within this time period will result in suspension of the attending physician’s admitting and surgical scheduling privileges.

4. **History & Physical Examinations**: History & Physical Examinations (H&P’s) should be dictated before surgery, and should be in the patient chart within 24 hours after admission. Any H&P greater than 7 days and less than 30 days old MUST be updated on the chart, noting changes in the patient’s status since initial review. If there are no changes, that must be noted as well, and then should be dated and signed. If an H&P is older than 30 days, it must be entirely redone.

5. **Progress Notes**: Progress notes must be completed immediately in IHIS and should include the admitting diagnosis, plan of care, and estimated length of stay.

6. **Consultations**: Residents make requests for consultations by entering them in the computer (in IHIS). Ideally, they should also contact the consulting resident to let them know about the consult. Consults are seen within 24 hours unless they are labeled as STAT consults, in which case they are seen as soon as possible.

7. **Physician Orders**: Admission and discharge orders must be present on all inpatient and ambulatory surgery records. All orders including verbal orders must be entered into IHIS and signed and dated by the author.

**U. Remediation**
The resident’s performance and learning is reviewed quarterly. Performance improvement and learning plans will be implemented for those individuals who are identified with knowledge, professionalism, or other deficiencies.

**V. Salary**
Salaries are determined through the office of the GME. In general, salaries increase approximately 1-3% per year with advancement up to PGY-7 will occur in July. Salaries are subject to changes yearly. Paychecks are issued monthly on the last day of each month. For information on direct deposit, payroll distribution, employment verification, tax, credit union, etc http://www.hr.osu.edu/payroll/.

**W. Sexual Harassment Policy**
The Department of Surgery administration, physicians, staff, and students are responsible for assuring that the Department maintains an environment for work and study free from abusive behavior and sexual harassment. Sexual harassment is unlawful and impedes the realization of the Department’s mission of distinction in education, scholarship, and service. Sexual harassment violates the dignity of individuals and will not be tolerated. The Department seeks to eliminate sexual harassment through education and by encouraging physicians, staff, and students to report concerns or complaints. Prompt corrective measures will be taken to stop sexual harassment whenever it occurs.

Sexual harassment does not refer to the occasional compliment of a socially acceptable nature, nor does it refer to socially acceptable fraternization among employees. Sexual harassment is any unwelcome sexual advance, request for sexual favor, reference to gender or sexual orientation, or other physical or verbal conduct of a sexual nature when:

- Submission or rejection of such conduct is used either explicitly or implicitly as a basis for any decision affecting terms or conditions of an individual’s employment, participation in any program or activity, or status in an academic course; or,
- Such conduct has the effect of unreasonably interfering with an individual’s work performance or educational experience, or creates an intimidating, hostile, or offensive environment for working, learning or living on campus, and has no legitimate relationship to the subject matter of a course.

The Department of Surgery representatives available for administration of this policy include, but are not limited to, the Chairperson, Division Chiefs, and Program Director.

Confidentially and Non-Retaliation:
Department representatives will make every reasonable effort to conduct all proceedings in a manner which will protect the confidentiality of all parties. All parties to the complaint should treat the matter under investigation with discretion and respect for the reputation of all parties involved.

Corrective Measures:
When it has been determined that sexual harassment has occurred, steps will be taken to ensure the harassment is stopped immediately. Corrective measures consistent with the severity of the offense will be imposed and may include sanctions. Sanctions imposed on the harasser may range from a verbal reprimand up to and including dismissal.

False Allegations:
It is a violation of this policy for anyone to knowingly make false accusations of sexual harassment. Failure to prove a claim of sexual harassment is not equivalent to a false allegation. Sanctions may be imposed for making false accusations of sexual harassment.

X. Substance Abuse
The Department of Surgery and affiliated institutions are drug and alcohol free work places. All residents must abide by the Hospital’s drug testing policy. By signing the Employment Agreement, the resident attests that he/she is not now impaired, nor does he/she abuse alcohol or other drugs.

Y. Use of Computers
The hospital provides electronic information resources including e-mail, network connections, and intranet and Internet connections to all physicians and staff for the purpose of facilitating business-related communications. (A subscription for Remote Computer Access from home is available) The Internet may be accessed for personal business only during non-work time. There is no right to privacy for any information created, sent, or received. Please review the full hospital policy regarding use of computers at www.medctr.ohio-state.edu/Departments/InfoSys. New residents are reimbursed for the purchase of any cell phone purchase thru GME office.
Medical Information Access:
Residents have ready access to specialty-specific and other appropriate reference material in print and electronic format. Electronic medical literature databases with search capabilities are available.

Clinical Skills Labs:
The Medical Center has built a Clinical Skills Education and Assessment Center which is located on the 6th floor of Prior Hall. The facility provides access to Standardized Patient encounters, full-body mannequins for simulating medical scenarios, high-end trainers including virtual reality endoscopic simulators, virtual critical care bays, ultrasound trainers, seminar rooms and ACS task training modules and models with 24/7 access and a procedure lab with task training practice sessions for procedures.

Z. Vacation & Leave
Departmental Vacation Policy:
All vacation time off is granted at the discretion of the Program Director and may be modified for resident’s academic performance needs, programmatic needs, and personal leave needs (Family Medical Leave, Parental Leave, and Sick Leave). As a benefit the division gives the residents 3 weeks (15 days) of vacation per year. Please keep in mind the American Board of Surgery requirements of no fewer than 48 weeks of full-time clinical experience in each residency year; this leaves one week per year for meetings/academic.

Departmental Vacation Rules:
- All vacations are scheduled Monday through Friday.
- Residents must verbally communicate their exact days off to their physicians, medical students, interns, residents, and peers at the start of the rotation. If their vacation is the first week of the rotation, contact these individuals ASAP (at least 30 days) prior to letting them know.
- Complete an “Application for Leave” form and return to the Program Director prior to leaving for vacation. This form must be signed by the Program Director prior to the vacation.
- If, for some reason, extenuating circumstances arise and a resident needs more time than the time allotted, they must get approval from either the Program Director or the physician on their service as soon as they become aware of the need. Returning late from vacation without first obtaining specific permission to do so is unacceptable.
- Vacations will not be granted the last week of June or the first two weeks of July due to the change in residents.

Meetings:
The department will pay for the Vascular Resident to attend one meeting per year. The Vascular Resident may also attend any meeting where an abstract, poster, paper etc is accepted for presentation. An “Application for Leave” and “OSU Travel Order Number” must be completed and signed by the Program Director prior to departure.

Absence for Interviews and/or Employment:
If a resident must leave their service for interviews and/or employment, they must fully communicate to the Program Director, physicians, residents, and peers the exact dates of their planned absence from the service. The resident should make every effort not to burden any one service unduly with absences. Vacation time should be used for this purpose and again a “Application of Leave” form must be completed and signed by the Program Director.

Parental Leave:
Parental Leave is available to all residents. When possible, written notice of pregnancy (or spouse’s pregnancy) or adoption, and plans for parental leave should be provided to the Program Director and Residency Coordinator as soon as possible, preferably by the end of the first trimester, in order to ensure that schedule changes can be made in a timely manner and that receipt of benefits can be accommodated. For new, incoming residents who are aware of a pregnancy, written notification to the Program Director is expected as soon as possible after the position is offered to the resident.
• Parental Leave is at 100% of regular pay up to six weeks for birth mothers and three weeks for fathers, domestic partners, and adoptive parents.
• Parental Leave may be paid through accrued sick leave until exhausted, with the balance being paid medical leave. A medical certification form must be submitted to the program within seven days of starting parental leave.
• Residents should be aware that the amount of leave taken for any reason may affect their ability to meet the requirements of the applicable certifying board. In some cases, the length of parental leave may approximate the total amount of time allowed away from a training program by a certifying board. The Program Director will attempt to obtain certifying board approval whenever appropriate; however, the certifying board decision is the final decision. Arrangements, including additional training needed to satisfy program requirements, which accrue before or after the period of leave maybe required.
• If an employee is eligible for Family Medical Leave (FML), the maximum amount of sick leave that may be used in combination with paid parental leave by a birth mother is based on the employee’s FML eligibility, not to exceed six additional weeks. (For example, a birth mother is eligible for six weeks of paid parental leave. If additional time is needed, birth mothers are eligible for up to six additional weeks of leave if they qualify for FML).
• Adoptive parents, fathers and domestic partners may not use sick leave in combination with paid parental leave.
• Additional leave for adoptive parents, fathers and domestic partners is available only if they are eligible under FML as specified in 4b (above). The additional leave noted in this section will be paid leave until sick leave and vacation leave balanced are exhausted. The remaining time will be unpaid leave.

Family and Medical Leave (FML):
Family and Medical Leave (FML) provides to eligible physicians and staff up to 12 work weeks (480 hours) of leave during any 12 month period for one or more of the following qualifying status changes:
• a serious personal health condition that prevents an employee from performing his/her job;
• care for a child during the first year following birth, adoption or foster care placement;
• care for a family member who has a serious health condition.

Physicians and staff are considered “eligible” if they have been employed by the University for one year, have worked 1,040 hours in the previous 12 months, and have a qualifying status change. When immediate family members are employed by the University, each is eligible for up to 12 weeks of FML following all required policies and procedures.

All leave is subject to departmental approval, and will be approved in accordance with needs as determined by the Program Director, and under the guidelines of the Family and Medical Leave (FML) Policy 6.05 and sick leave usage guidelines covered under Paid Leave Programs Policy 6.27. All leave must be supported by the appropriate documentation, including an approved “Application for Leave” (Form 5171-A). These policies may be found online at http://hr.osu.edu/benefits/timeoffleave.htm.

Approval Process for Birth, Adoption or Foster Care Placement:
The Program Director must be notified as soon as any of the above-mentioned qualifying events occur. Under the FML Policy, when a qualifying status change is anticipated, verbal notice should be given as far in advance as possible, followed by written documentation submitted 30 days prior to the leave.

If the resident is the birth mother, she should obtain a letter from her obstetrician at the beginning of each trimester confirming her ability to continue working.
Guidelines for sick leave usage covering self (whether birth mother, birth father or domestic partner) are covered under Paid Leave Programs Policy 6.27.

The resident must recognize that the surgical specialty board and the College of Medicine define a year of training as at least 48 weeks. Therefore, if more than four weeks (in addition to sick time) is taken off during one year, the time necessary to meet these requirements must be made up in a fashion determined by the Program Director.

Leave for serious health conditions involving birth mother and/or child are covered under the Family and Medical Leave Policy 6.05, and are covered by the following guidelines:

- Leave form and documentation from an appropriate health care provider.
- Compensation arrangements will be made on an individual basis.
- Residents absent from the program for more than 12 months must reapply for a position when one becomes available.

**AA, Vendor Policy** (below is only the policy regarding gifts to individuals please be sure to review entire policy)

Purpose: All healthcare professionals and institutions have an ethical obligation to provide safe, effective, patient-centered, timely, efficient, and high-quality care for their patients. In order to ensure that the care provided is always in the best interest of the patient, healthcare professionals and institutions should always strive to maintain the trust of their patients and to minimize any conflicts of interest in the delivery of care. The fiduciary nature of the relationship between patients and the healthcare professionals who treat them is based on an inequality of information about medicine and an imbalance of control between the parties. However, it is also based on an implicit understanding that a healthcare professional will make decisions that are in the best interest of the patient as opposed to the best interest of the professional.

In the last few years, a number of medical centers and medical schools have developed detailed policies that operationalize those ethical statements. These policies tend to include (but are often not limited to) a focus on the issues of gifts to healthcare professionals, payment to healthcare professionals for consulting or other advisory work, and payment to healthcare professionals who participate in speakers’ bureaus or other educational programs.

The purpose of the policy is to outline a set of acceptable business practices and ethical principles that will guide the interactions of all physicians, staff, and trainees of The Ohio State University Wexner Medical Center with vendor corporations and vendor representatives. The goal of this policy is not to completely or even materially limit the ability of vendor representatives to enter Medical Center facilities or to interact with individual Medical Center staff members. A separate policy entitled “Vendor Access and Control” covers the physical access of our facilities for vendor representatives. Ethical relationships between healthcare professionals, institutions, and vendor representatives can often be beneficial for all parties involved – including patients – in that these relationships may be the basis of advances in research, education and patient care. The goal of this policy is simply to place ethical boundaries on the actions of both parties.

**Gifts to Individuals:**
1. Individual Medical Center staff members are prohibited from accepting any gifts from vendor representatives or vendor corporations regardless of the value of the gift. This includes items of minimal value like pens, mugs, notepads, etc. that have been commonly distributed by vendors in the past.
2. Individual Medical Center staff members may receive marketing, instructional, warning or other educational information from a vendor about the vendor’s products at any time.
3. Any gifts that are delivered directly to an individual Medical Center staff member at any site must be either returned directly by the Medical Center staff member to the vendor, or forwarded to the Medical Center Corporate Compliance Office (N-143 Doan Hall) which will return the gift to the vendor. In either case, a standard letter will be prepared by the Compliance Office that should
accompany the returned gift that explains that individuals can no longer accept any gifts from vendors.

**BB. Work Environment**

The Ohio State University Wexner Medical Center and Program Director will provide services and systems to residents to minimize the work that is extraneous to their educational programs. They will ensure that the following conditions are met:

1. Residents on duty in the hospital are provided a safe and healthy educational environment with access to appropriate food services and adequate and appropriate call rooms. (http://www.medctr.ohio-state.edu/Departments/ExternalSites/staffadmin)

2. Patient and family support services; including peripheral intravenous access placement, phlebotomy, laboratory, messenger, transporter, and other patient support services in a manner appropriate to and consistent with educational objectives and quality patient care.

3. Laboratory, pathology, and radiology services to support timely and quality patient care.

4. A medical records system that is available at all times and adequate to support quality patient care, the education of residents, quality assurance activities, and provide a resource for scholarly activities.

5. Safety and personal security measures at all training locations including, but not limited to, parking facilities, call room, hospital and institutional grounds, and related clinical facilities.

6. An educational and work environment that is optimal for both resident education and for patient care, while ensuring that undue stress and fatigue are avoided to themselves and their peers. Residents are responsible for management of their time before, during and after clinical assignments. It is the resident’s responsibilities to assure honest and accurate reporting of duty hours, patient outcomes and clinical experience. Physicians will monitors the resident patient care performance and provide feedback as needed. Our program is dedicated to helping residents attain their lifelong learning and professional education goals.

7. An educational and work environment in which residents may raise and resolve issues without fear of intimidation or retaliation.