Goals and Objectives – Vascular and Interventional Radiology (First year)

I. Patient Care
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
(a) Shows ability to interact with clinicians when reviewing vascular and interventional imaging studies.
(b) Shows ability to recommend vascular and interventional studies or procedures as appropriate to investigate or treat the specified pathologic process
(c) Performs appropriate pre- and post-procedure evaluation of patients.

II. Medical Knowledge
(a) Demonstrates knowledge of normal/abnormal anatomy as seen on vascular imaging studies.
(b) Demonstrates knowledge of pertinent normal/abnormal anatomy relating to non-vascular interventional procedures.
(c) Shows ability to recognize and describe common medical conditions treated or diagnosed by vascular and interventional radiology.

I. Practice Based Learning and Improvement
(a) Shows evidence of independent study using textbooks from suggested reading list.
(b) Demonstrates appropriate follow up of interesting cases.

I. Interpersonal Skills
Residents must demonstrate skills to:
(a) Interact with x-ray technologists, medical students, fellow residents, and attending radiologists.
(b) Interact with clinicians when reviewing cases involving vascular and interventional radiology studies and procedures

I. Professionalism
VI) Demonstrates ability to interact with patient/patient’s family/clinician when discussing significance of vascular and interventional procedures and their impact on patient care including what therapeutic options may or may not be appropriate.

VI. Systems Based Practice
a) Shows ability to interact with clinicians regarding cost effective and
streamlined patient evaluation for differing clinical entities.
b) Able and willing to participate in clinical conferences in which imaging studies used to guide patient care/evaluation.

Goals and Objectives – Vascular and Interventional Radiology (Second Year)

VI) I. Patient Care
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
a) Shows ability to interact with clinicians when reviewing vascular and interventional imaging studies.
b) Shows ability to recommend vascular and interventional studies or procedures as appropriate to investigate or treat the specified pathologic processes.
c) Performs appropriate pre- and post-procedure evaluation of patients.
d) Obtains appropriate informed consent for procedures.
e) Shows ability to use PACS and hospital information systems.
f) Obtains appropriate post procedure follow-up of patients and procedure outcomes.

II. Medical Knowledge
a) Demonstrates knowledge of normal/abnormal anatomy as seen on vascular imaging studies.
b) Demonstrates knowledge of pertinent normal/abnormal anatomy relating to non-vascular interventional procedures.
c) Shows ability to recognize and describe common medical conditions treated or diagnosed by vascular and interventional radiology.
d) Is familiar with both common and uncommon vascular conditions and can formulate extensive differential diagnosis for findings on vascular imaging studies.
e) Demonstrates knowledge of nonvascular pathologic conditions appropriately treated by percutaneous techniques.
f) Displays competence in the understanding and technical performance of basic vascular and interventional radiology procedures.

VI) III. Practice Based Learning and Improvement
a) Shows evidence of independent study using textbooks from suggested reading list.
b) Demonstrates appropriate follow up of interesting cases.
c) Prepares teaching file of interesting cases.
d) Is able and willing to make detailed presentations of vascular and
interventional imaging studies at both intra and interdepartmental conferences.

VI) IV. Interpersonal Skills
Residents must demonstrate skills to:
 a) Interact with x-ray technologists, medical students, fellow residents, and attending radiologists
 b) Interact with clinicians when reviewing cases involving vascular and interventional radiology studies and procedures.
 c) Interact with patients/family when performing invasive procedures.
 d) Can participate in administrative and scholarly committees when asked.

VI) V. Professionalism
 a) Demonstrates ability to interact with patient/patient’s family/clinician when discussing significance of vascular and interventional procedures and their impact on patient care including what therapeutic options may or may not be appropriate.
 b) Can participate in activities relative to the role of vascular and interventional radiology both to the medical community and the general public.

VI. Systems Based Practice
 a) Shows ability to interact with clinicians regarding cost effective and streamlined patient evaluation for differing clinical entities.
 b) Able and willing to participate in clinical conferences in which imaging studies used to guide patient care/evaluation.
 c) Is able and willing to organize and present case conferences/didactic sessions as directed and supervised by radiology staff.
Goals and Objectives – Vascular and Interventional Radiology (Third Year)

VI) I. Patient Care
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
   a) Shows ability to interact with clinicians when reviewing vascular and interventional imaging studies.
   b) Shows ability to recommend vascular and interventional studies or procedures as appropriate to investigate or treat the specified pathologic processes.
   c) Performs appropriate pre- and post-procedure evaluation of patients.
   d) Obtains appropriate informed consent for procedures.
   e) Shows ability to use PACS and hospital information systems.
   f) Obtains appropriate post procedure follow-up of patients and procedure outcomes.
   g) Is able and willing to assist lower level residents.
   h) Is able and willing to make assigned presentations to various groups on the appropriate application of vascular and interventional studies and procedures.

II. Medical Knowledge
   a) Demonstrates knowledge of normal/abnormal anatomy as seen on vascular imaging studies.
   b) Demonstrates knowledge of pertinent normal/abnormal anatomy relating to non-vascular interventional procedures.
   c) Shows ability to recognize and describe common medical conditions treated or diagnosed by vascular and interventional radiology.
   d) Is familiar with both common and uncommon vascular conditions and can formulate extensive differential diagnosis for findings on vascular imaging studies.
   e) Demonstrates knowledge of nonvascular pathologic conditions appropriately treated by percutaneous techniques.
   f) Displays competence in the understanding and technical performance of basic vascular and interventional radiology procedures.
   g) Can perform most vascular and interventional procedures with staff supervision.
h) Can serve as an authoritative consultant to clinicians on the interpretation of and appropriate use of vascular and interventional imaging studies and procedures.

i) Can perform and teach basic interventional procedures to lower level residents with staff supervision.

VI) III. Practice Based Learning and Improvement
a) Shows evidence of independent study using textbooks from suggested reading list.

b) Demonstrates appropriate follow up of interesting cases.

c) Prepares teaching file of interesting cases.

d) Is able and willing to make detailed presentations of vascular and interventional imaging studies at both intra and interdepartmental conferences.

e) Upon request, participates in educational courses for clinicians, medical students, and fellow residents.

f) Upon request, participates in educational activities at the local/national level.

VI) IV. Interpersonal Skills
Residents must demonstrate skills to:

a) Interact with x-ray technologists, medical students, fellow residents, and attending radiologists.

b) Interact with clinicians when reviewing cases involving vascular and interventional radiology studies and procedures.

c) Interact with patients/family when performing invasive procedures.

d) Can participate in administrative and scholarly committees when asked.

e) Can serve as a liaison between our department with both other radiology departments and other specialty groups in our institution.

VI) V. Professionalism
a) Residents must demonstrate ability to interact with patient/patient’s family/clinician when discussing significance of vascular and interventional procedures and their impact on patient care including what imaging studies may or may not be appropriate.

b) Can participate in activities relative to the role of vascular and interventional radiology both to the medical community and the general public.

c) Is perceived as a role model for radiology from both within and outside the department.

VI. Systems Based Practice
a) Shows ability to interact with clinicians regarding cost effective and streamlined patient evaluation for differing clinical entities.

b) Able and willing to participate in clinical conferences in which
Goals and Objectives – Vascular and Interventional Radiology
(Fourth Year)

VI) I. Patient Care
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
   a) Shows ability to interact with clinicians when reviewing vascular and interventional imaging studies.
   b) Shows ability to recommend vascular and interventional studies or procedures as appropriate to investigate or treat the specified pathologic processes.
   c) Performs appropriate pre- and post-procedure evaluation of patients.
   d) Obtains appropriate informed consent for procedures.
   e) Shows ability to use PACS and hospital information systems.
   f) Obtains appropriate post procedure follow-up of patients and procedure outcomes.
   g) Is able and willing to assist lower level residents.
   h) Is able and willing to make assigned presentations to various groups on the appropriate application of vascular and interventional studies and procedures.

II. Medical Knowledge
   a) Demonstrates knowledge of normal/abnormal anatomy as seen on vascular imaging studies.
   b) Demonstrates knowledge of pertinent normal/abnormal anatomy relating to non-vascular interventional procedures.
   c) Shows ability to recognize and describe common medical conditions treated or diagnosed by vascular and interventional radiology.
   d) Is familiar with both common and uncommon vascular conditions and can formulate extensive differential diagnosis for findings on
vascular imaging studies.
e) Demonstrates knowledge of nonvascular pathologic conditions appropriately treated by percutaneous techniques.
f) Displays competence in the understanding and technical performance of basic vascular and interventional radiology procedures.
g) Can perform most vascular and interventional procedures with staff supervision.
h) Can serve as an authoritative consultant to clinicians on the interpretation of and appropriate use of vascular and interventional imaging studies and procedures.
i) Can perform and teach basic interventional procedures to lower level residents with staff supervision.

VI) III. Practice Based Learning and Improvement
a) Shows evidence of independent study using textbooks from suggested reading list.
b) Demonstrates appropriate follow up of interesting cases.
c) Prepares teaching file of interesting cases.
d) Is able and willing to make detailed presentations of vascular and interventional imaging studies at both intra and interdepartmental conferences.
e) Upon request, participates in educational courses for clinicians, medical students, and fellow residents.
f) Upon request, participates in educational activities at the local/national level.

VI) IV. Interpersonal Skills
Residents must demonstrate skills to:
a) Interact with x-ray technologists, medical students, fellow residents, and attending radiologists.
b) Interact with clinicians when reviewing cases involving vascular and interventional radiology studies and procedures.
c) Interact with patients/family when performing invasive procedures.
d) Can participate in administrative and scholarly committees when asked.
e) Can serve as a liaison between our department with both other radiology departments and other specialty groups in our institution.

VI) V. Professionalism
a) Residents must demonstrate ability to interact with patient/patient’s family/clinician when discussing significance of vascular and interventional procedures and their impact on patient care including what imaging studies may or may not be appropriate.
b) Can participate in activities relative to the role of vascular and interventional radiology both to the medical community and the
general public.
c) Is perceived as a role model for radiology from both within and outside the department.

VI. Systems Based Practice
a) Shows ability to interact with clinicians regarding cost effective and streamlined patient evaluation for differing clinical entities.
b) Able and willing to participate in clinical conferences in which imaging studies used to guide patient care/evaluation.
c) Is able and willing to organize and present case conferences/didactic sessions as directed and supervised by radiology staff.
d) Is able and willing to participate in activities at the local/national level under staff supervision.

ANGIO/INTERVENTIONAL RADIOLOGY

PATIENT CARE
1) Communicate effectively and demonstrate caring and respectful behavior when interacting with patients and families
2) Gather essential and accurate information about patients when appropriate (reviews old films, chart, lab work, calls referring MD)
3) Use information technology to support patient care decisions and patient education (looks up needed information in books, on-line)
4) Work effectively with other health care professionals including other disciplines to provide patient focused care (interpersonal skills, calls reports when needed, affable on call)

KNOWLEDGE
5) Demonstrate an investigatory and analytic thinking approach to clinical situations (after gathering necessary history and clinical information, tailors studies to answer clinical questions)
6) Know and apply basic and clinical sciences - Physics (uses physics and radiation biology in daily practice, ie: proper protocol for studies, proper size thickness, appropriate repeat of studies)
7) Know and apply basic and clinical sciences - Is familiar with proper use of various contrast agents
8) Know and apply basic and clinical sciences - Appropriate knowledge of common disease processes
9) Visual perception
10) Ability to formulate a differential diagnosis
11) Knows necessary anatomy
12) Performs completely all invasive procedures appropriate for level of training (manual skills)

**PRACTICE-BASED LEARNING AND IMPROVEMENT**

13) Locate and assimilate evidence from scientific studies related to patient problems (shows evidence of independent study and choice of journal club articles)
14) Appropriate followup of cases
15) Facilitates learning of students and other health care professionals (teaches others in the reading room - students, other service residents, techs, nurses, etc.)

**INTERPERSONAL AND COMMUNICATION SKILLS**

16) Work effectively with others as a member of the imaging team (pitches in where and when needed - not a clock watcher, comes on time, stays late, timely return from conf.)
17) Dictate written reports that are correct, concise, meaningful, quality of dictation - timeliness of signing reports

**PROFESSIONALISM**

18) Considers well being of patients and department ahead of personal needs (availability)
19) Commitment to ethical principles (pt. Confidentiality, obtaining informed consent, business practices)
20) Maintains appropriate professional demeanor in patient care areas and reading room

**SYSTEMS-BASED PRACTICE**

21) Understands how their patient care and image interpretation affects patient care and other professionals (and vice versa) (demonstrates timely reporting, faxing, calls to referring MD's, careful coding)
22) Concern for cost-effective operation of department, patient imaging work-up, effect on hospitalization, etc. (adds on studies late when needed, timely reporting, use of most efficient modality to obtain needed information)
23) Assist patients with complexities of medical system when possible