

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

- 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.

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

