Training in Interventional Radiology: Update
April 2014

John Kaufman MD
Jeanne M. LaBerge, MD
Charles Dotter, MD

“The angiographer…..must accept the responsibility for the direct care of patients before and after the procedure; now see them as patients, not just as blocked arteries.”

1968
VIR Subspecialty Certificate

- First exam 1995
- ABR Diagnostic Radiology diplomates only
- Completion ACGME-accredited fellowship
- 500 cases from fellowship
- 200 cases from 12 months practice
- 10 year renewable certificate
IR Competencies

- Imaging
- Procedures
- Patient care

IR
IR Is Complex

Potential IR Responsibilities by Specialty

- **General Radiology**
  - Abscess drainage
  - Biopsy

- **Vascular Surgery**
  - Vascular trauma call
  - Peripheral vascular call
  - Vascular access

- **Interventional Cardiology**
  - Peripheral vascular call
  - Vascular access

- **General Surgery**
  - Abscess drainage
  - Biopsy
  - GI procedures

- **Surgical Oncology**
  - Biopsy
  - Oncology interventions

- **Gastroenterology**
  - GI procedures
  - Biopsy

- **Urology/Nephrology**
  - Dialysis/nephrectomy
  - Prostate cancer treatment
Why Change Training

- IR practice has evolved
  - Complexity
  - Non-procedural care
- Multiple ways to deliver image-guided care
- Patients benefit from well-trained IR specialists
- Training, certification best situated in Radiology
Why A Specialty?

• IR skill set is unique and complex
  – Imaging, intervention, patient care

• Image-guided intervention widely applied
  – Patients benefit from well-trained IR specialists

• Diagnostic Radiology analogy
  – Everyone uses some imaging, but someone has to be the expert
Evolution of IR Training

- 1992 – Accreditation fellowships
- 1994 – VIR Subspecialty recognized
- 1995 – VIR Subspecialty exam
- 2000 – VIR Clinical Pathway
- 2005 – VIR DIRECT Pathway
- 2009 – IR Primary Certificate rejected
- 2012 – IR Specialty, IR/DR Certificate approved
New ACGME Training Program

Purpose

• To facilitate optimal patient care in IR
• To provide trainees with the tools they need to deliver this care - as imagers, proceduralists, and clinicians
New ACGME Training Program

Key Elements

• More time to master the procedural and clinical domains of IR (1 additional year)

• Greater focus on clinical care: outpatient clinics, inpatient consultation and admission, and critical care

• New opportunity for trainees to enter into IR from medical school
New ACGME Training Program

Key Elements

- Maintain core competency in Diagnostic Radiology
- Provide programs with as much flexibility as possible to implement these changes at their home institutions
Program Requirements: Framework

- Clinical internship
- Residency
  - PGY 2-4 standard DR imaging training
  - PGY 5-6 IR training
    - Outpatient IR clinics, admitting IR services
    - 1 rotation ICU (critical care)
    - Up to 4 rotations in DR (if needed)
      - Nuclear medicine, Mammography
Program Requirements: Framework

• 1 year fellowships will eventually be phased out
• Timeline for conversion to the new training program is long
  – 1 more year for internal ACGME process
  – 7 years for conversion from fellowship to residency
Transition Timeline

- 2014: Program Requirements
- 2015: First residency applications
- 2022: End of 1-year fellowships
Program Requirements:
Draft Review and Approval (2/2014)

- **RRC**
  - Chair, Larry Davis
    - Jim Anderson
    - Duane Mezwa
    - Kristen Destigter
    - Gautham Reddy
    - Don Fleming
  - Val Jackson
    - Susan John
    - Bradley Carr
    - Liz Oates
    - Kay Vydareny
    - Felicia Davis
Program Formats: Integrated and Independent

- Two training program formats are available.
  - *Integrated*: residents are matched from medical school and the entire educational experience is provided during the residency.
  - *Independent*: residents enter at a later stage in training and are given credit for prior training in another field.

- This approach is used by three surgical specialties: Plastic surgery, Thoracic surgery, Vascular surgery.
• Residents complete 5 years of training after a clinical internship year
  – 3 DR, 2 IR under a IR PD
  – Match out of medical school or transfer in from DR residency at the home institution
  – Match into the last 2 IR years after completion of a DR residency. Qualifying residents may enter the PGY6 year.
Residents complete 2 years of training after completing a 4-year DR residency
– Candidates may enter the second year of the program (PGY 6 level) provided they have adequate training experience including at least 12 IR or IR-related rotations and documentation of at least 500 procedures covering the broad domain of IR.
Entry Points: Integrated

Medical school match

Radiology 3:2

Qualified transfer

* IR or IR-related rotations

<table>
<thead>
<tr>
<th>PGY</th>
<th>DR</th>
<th>IR*</th>
<th>ICU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0-4</td>
<td>8-12</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Totals: 36-40 | 28-32 | 1
Entry Points: Independent

DR Graduates
Qualified PGY6 entry

<table>
<thead>
<tr>
<th>PGY</th>
<th>DR</th>
<th>IR*</th>
<th>ICU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0-4</td>
<td>8-12</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>28-32</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

* IR or IR-related rotations
For Integrated programs, the program director is responsible for the entire 5 year residency but may designate an associate PD with responsibility for the first three years of training focused on diagnostic imaging.
Call in PGY 5

- For Integrated Programs, the distribution of call in DR vs IR has not been specified and is at the discretion of the program. In particular, 4th year residents may take call in diagnostic imaging as determined by the individual program.
IR and IR-related Rotations

During PGY 5 and 6, training in IR content can be achieved in the IR section or on IR-related rotations outside of the IR section proper.

Examples include rotations in vascular surgery, medical oncology clinic or interventional procedural rotations housed within diagnostic radiology sections.
Concerns

• Mandatory transition of fellowship to residency
  – Not what was proposed and endorsed
• Integration IR/DR with DR programs
• Funding
• Numbers of graduates
• IR training for non IR/DR residents
Concerns

• DR programs without VIR fellowships
  – Disenfranchised

• Large VIR fellowships
  – Decreased number IR/DR residents

• Complex resident selection process
Lots Of Activity Nationally

- ABR
- ACGME
- APDR
- SCARD

- ACR
- AUR
- SIR
- APDIR
Lessons From Others?

• Vascular Surgery Primary Certificate 2006
• Integrated: enter from medical school
  – VS Certification only
• Independent: multiple entry points
  – VS and General Surgery certification
VS Experience 7 Years Later

![Bar chart showing VS experience over 7 years]
VS Experience 7 Years Later
Summary

• The Program Requirements are written with training outcomes in mind. Programs will have flexibility in implementing the PRs provided the training outcomes and objectives are met.

• The final version of the Program Requirements will not be available for approximately 1 year. Until then all elements of the document are subject to change.
Thank you!