

## Global Statement Defining Interventional Radiology

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A consensus statement developed by the Society of Interventional Radiology (SIR, USA), Cardiovascular and Interventional Radiological Society of Europe (CIRSE, Europe), Austrian Society of Interventional Radiology (ÖGIR, Austria), Brazilian Society of Interventional Radiology and Endovascular Surgery (SoBRICE, Brazil), British Society of Interventional Radiology (BSIR, United Kingdom), Bulgarian Society of Interventional Radiology (Bulgaria), Canadian Interventional Radiology Association (CIRA, Canada), Cardiovascular and Interventional Radiology Section within the Singapore Radiological Society (CVIR section of the SRS, Singapore), Cardiovascular and Interventional Society of Turkey (TGRD, Turkey), Chinese Society of Interventional Radiology (CSIR, China), Croatian Society of Radiology (CSR, Croatia), Czech Society of Interventional Radiology (CSIR, Czech Republic), Danish Society of Interventional Radiology (DFIR, Denmark), Dutch Society of Interventional Radiology (NGIR, Netherlands), Egyptian

Society of Interventional Radiology (ESIR, Egypt), Finnish Society of Interventional Radiology (FSIR, Finland), Georgian Association of Cardiovascular and Interventional Radiology (GACIR, Georgia), German Society of Interventional Radiology and Minimally Invasive Therapy (DeGIR, Germany), Hellenic Society of Interventional Radiology (GSIR, Greece), Hong Kong Society of Interventional Radiology (HKSIR, China), Hungarian Society of Cardiovascular and Interventional Radiology (HSIR, Hungary), IberoAmerican Society of Interventionism (SIDI, Latin America), Indian Society of Vascular and Interventional Radiology (ISVIR, India), Interventional Radiology Section, Polish Medical Society of Radiology (PLTR, Poland), Interventional Radiology Society of Australasia (IRSA, Australia and New Zealand), Irish Society of Interventional Radiology (ISIR, Ireland), Israeli Society of Interventional Radiology (ILSIR, Israel), Japanese Society of Interventional Radiology (JSIR, Japan), Korean Society of Interventional Radiology (KSIR, Korea), Pan Arab Interventional Radiology Society (PAIRS, Lebanon), Philippine Society of Vascular and Interventional Radiology (PSVIR, Philippines), Portuguese Section of Interventional Radiology (NURIP) of the Portuguese Society of Radiology and Nuclear Medicine (SPRMN, Portugal), Section of Cardiovascular and Interventional Radiology of the Royal Belgian Radiological Society (RBRS, Belgium), Seldinger Society of Vascular and Interventional Radiology (SSVIR, Sweden), Sezione di Studio della SIRM di Radiologia Vascolare ed Interventistica (SIRM, Italy), Sociedad Argentina de Radiologia (SAR, Argentina), Society of Interventional Onco-Radiology (RSIOR, Russia), Spanish Society of Vascular and Interventional Ra-

diology (SERVEL, Spain), Swiss Society of Cardiovascular and Interventional Radiology (SSCVIR, Switzerland), Taiwanese Radiological Society (Taiwan), Thai Society of Vascular and Interventional Radiology (TSVIR, Thailand), and the Working Group of Cardiovascular and Interventional Radiology of the Slovak Radiological Society (PSKVIR, Slovak Republic).\*

### A. PURPOSE

A global statement setting forth the basic elements of interventional radiology (IR).

### B. BACKGROUND

IR originated within diagnostic radiology as an invasive diagnostic subspecialty. IR is now a therapeutic and diagnostic specialty that comprises a wide range of minimally invasive image-guided therapeutic procedures as well as invasive diagnostic imaging. The range of diseases and organs amenable to image-guided therapeutic and diagnostic procedures are extensive and constantly evolving, and include, but are not limited to, diseases and elements of the vascular, gastrointestinal, hepatobiliary, genitourinary, pulmonary, musculoskeletal, and, in some countries, the central nervous system. As part of IR practice, IR physicians provide patient evaluation and management relevant to image-guided interventions in collaboration with other physicians or independently. IR procedures have become an integral part of medical care.

### C. DEFINITION OF INTERVENTIONAL RADIOLOGY

In each country and region, IR practice varies according to local factors. Furthermore, in some countries, IR is

\*The organizations listed represent the national interventional radiology organizations who have signed onto this statement as of June 7, 2010. As more societies sign onto the statement, future iterations will appear as Web media.

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formally recognized as a unique subspecialty of diagnostic radiology, whereas in other countries IR is formally recognized as a distinct radiologic specialty. The following features are common to IR both as a subspecialty or specialty:

1. Expertise in diagnostic imaging and radiation safety.
2. Expertise in image-guided minimally invasive procedures and techniques as applied to multiple diseases and organs.
3. Expertise in the evaluation and management of patients suitable for the image-guided interventions included in the scope of IR practice.
4. Continual invention and innovation of new techniques, devices, and procedures.

Based on these features, IR is unique and distinct from all other surgical, radiologic, and medical subspecialties and specialties.

#### D. ELEMENTS OF IR

The following elements define IR:

##### 1. Clinical Scope

- a. Evaluation and management of patients with diseases or conditions amenable to image-guided interventions.
- b. Invasive diagnostic imaging with the exception of invasive cardiac imaging.
- c. Minimally invasive image-guided and related procedures of vascular, gastrointestinal, hepatobiliary, genitourinary, pulmonary, musculoskeletal, and, in some countries, neurologic conditions amenable to these procedures.
- d. Diagnostic imaging as relevant to local practice.

##### 2. Training

- a. Dedicated, standardized, and regulated IR training programs that include:
  - i. Formal training and testing in diagnostic imaging.
  - ii. Formal training and testing in radiation physics and safety.
  - iii. Formal training and testing in image-guided minimally invasive and related procedures and techniques.

- iv. Formal training and testing in longitudinal outpatient and inpatient care relevant to patients undergoing IR procedures.

v. Training in research.

- b. Support for trainees by hospital, medical school, or other mechanisms used to support residents and fellows.

##### 3. Certification

- a. Completion of standardized IR and imaging training programs.
  - i. Examination by a generally accepted and recognized medical certifying body.
  - ii. Maintenance of certification as required by national and local medical certifying bodies.
  - iii. Formal acknowledgment by board-certifying organizations (or their equivalent) of IR as a unique specialty or subspecialty of radiology.

##### 4. Clinical Practice

- a. Patient care
  - i. Outpatient clinical facilities and staff for patient consultations, treatment planning, and follow-up.
  - ii. Admitting privileges to an IR service.
  - iii. Inpatient rounds on admitted IR patients.
  - iv. Documentation in permanent medical records of above interactions with patients.
- b. Dedicated and adequate imaging equipment, facilities, and tools for performing image-guided interventional procedures.
  - i. Adherence to radiation safety practices for patients and staff.
  - ii. Adherence to local standards of patient monitoring.
- c. Dedicated IR clerical, technical, nursing, midlevel practitioners, and radiation safety staff.

- d. IR practice combined with or exclusive of diagnostic radiology.

##### 5. Quality

- a. Lifelong dedication to continuous quality improvement.
- b. Lifelong continuing education through organized programs.
- c. Adoption of best practices when applicable.
- d. Adherence to official IR societal practice standards whenever feasible.
- e. Formal collection, recording, and analysis of complications and outcomes.

##### 6. Research

- a. Basic, laboratory, and clinical research performed according to the internationally accepted principles of ethical research practices and standards of quality.
- b. Investigations into diseases and conditions treated with image-guided techniques.
- c. Development of new image-guided interventional techniques and devices.
- d. Outcomes investigations including comparative effectiveness to non-IR treatments.
- e. Randomized, prospective clinical trials whenever feasible.
- f. Investment by IR organizations in research training.

##### 7. Professionalism

- a. The best interests of the patient first in all clinical interactions.
- b. Collaboration with other specialists to optimize patient outcomes.
- c. Open disclosure of conflicts of interest (especially financial) to patients, referring physicians, hospital administrators, audiences, and journal referees.
- d. Formal recognition of IR at all levels as a distinct subspecialty or specialty of radiology.
- e. Promotion of the specialty or subspecialty of IR.

- f. Promotion of IR procedures as first treatment options for patients whenever appropriate.

#### APPENDIX

The following individuals served as authors for the Global Statement Defining Interventional Radiology Writ-

ing Group: John A. Kaufman, MD, (co-chair), Dotter Interventional Institute, Oregon Health Sciences University, Portland Oregon; Jim A. Reekers, MD, (co-chair), Academic Medical Center, Amsterdam, The Netherlands; James P. Burnes, MD, Monash Medical Center, Clayton, Victoria, Australia; Aghiad Al-Kutoubi, MD, The American University of Beirut Medi-

cal Center, Beirut, Lebanon; Curtis A. Lewis, MD, MBA, JD, Emory University School of Medicine/Grady Health System, Atlanta, Georgia; Brian W. Hardy, MD, Health Sciences Center, Winnipeg, Canada; Sachio Kuribayashi, MD, Keio University School of Medicine, Tokyo, Japan; and Sanjiv Sharma, MD, All India Institute of Medical Sciences, New Delhi, India.