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Article Title.
CIRSE-EFRS Position Statement.

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CIRSE-EFRS Position Statement.

Interventional radiology (IR) has come of age and is a core and innovative specialty within modern medicine. It has also served as a fulcrum for change in many allied sciences. The pace of change has challenged modern health structures and close intra- and inter-disciplinary collaboration has been fundamental to our progress. Within radiology units there is a requirement for a diverse multi-stakeholder contribution that successfully delivers IR care; including but not limited to radiology and radiography working in a seem-less collaboration. As the cornerstone of modern IR, it is timely that the Cardiovascular and Interventional Radiology Society of Europe (CIRSE) and the European Federation of Radiographer Societies (EFRS) issue a

consensus statement that reflects our members' shared perspective on safe, high quality care and our future direction.

CIRSE/EFRS are committed to promoting the highest standards in protecting patients and healthcare workers. This requires a particular complex interface of specialties and advanced medical technology to provide safe, reliable and reproducible outcomes in the IR environment. At its core the triad of radiology, radiography and radiology nursing specialist expertise have to meet and harness each individual skill set whilst exploiting clear synergies in the distinct work environment that is IR. The radiology/radiography team is best placed to adopt quality initiatives from other areas whilst exploring novel and bespoke initiatives best suited to IR. The principles of teamwork and communication will be best realised through the collaborative design of education. We are committed to a 'learning and safety culture' (Frankel A, Haraden C, Federico F, 2017) . that seeks to develop systems for data management supporting research and audit and a dynamic method of developing skills and competencies (England *et al.*, 2016) .

CIRSE/EFRS believe that we need to work together to design curricula that better reflect the evolving needs of the modern specialist radiographer and radiologist, which better prepares them for the working environment(Belli, 2013; Shaikh *et al.*, 2016; 'The European Diploma in Radiology (EDiR): investing in the future of the new generations of radiologists', 2018; 'Interventional radiology in European radiology departments: a joint survey from the European Society of Radiology (ESR) and the Cardiovascular and Interventional Radiological Society of Europe (CIRSE)', 2019). Recognition of experience, specialist qualifications and the development of new blended learning environments are key. Specialised radiographers for IR are fundamental to our development. A reasonable goal is to see training recognition across numerous jurisdictions. Modern IR training will require dynamic modules to update colleagues on developing areas that rapidly move from translation into practice. The position of IR in modern healthcare underlines the need for formal training and assessment structures, and specialist recognition of IR clinicians and radiographers. Undergraduate and post-graduate education and the need for specialty programmes is a work in progress with significant progress made through the European Board of Interventional Radiology examination. Properly designed systems will support recruitment and retention of colleagues as well as facilitating worker mobility and gender balance.

IR roles now extend into outpatient clinics, clinical consultations and multidisciplinary team meetings. With this come novel responsibilities in manging hospital capacity and workflow, whilst continuing to ensure services evolve around patient's needs and improving outcomes., Similarly, there are clear opportunities for radiography career development, including advanced practitioner roles, performance of procedures and cancer care coordinators amongst others. The role is 24/7 and significant changes need to occur to move resources from traditional areas which are now managed through IR. We need a working environment that supports the 24/7 nature of IR as well as providing advanced support, such as anaesthetics. Recruitment, retention and mobility of IR specialists require us to design a workplace that meets the needs of modern trainees.

Conclusion.

We know change will be a constant in the field of IR and it is the role of CIRSE/EFRS and our members to work together to engineer our response to change which brings both challenges and opportunities. How we engineer CIRSE/EFRS collaborative efforts to respond to this change is vital. We are fortunate that we are building on strong working relations that have evolved organically. We seek a common goal to harness the huge potential and synergies between our two professional groups whilst respecting the individual skill sets and scopes of practice with the goal of continuing to improve services and outcomes for patients. A dynamic collaborative model between CIRSE/EFRS can best seek to advocate for and guide future development. This can also serve as the link point in our interaction with other service providers and management. The pillars remain true including; education, research and training and evidence-based quality processes whilst promoting IR through governance structures and the global IR community. Clearly a single document cannot be all encompassing but we hope this review can serve as the basis for future reference and themed collaborative writing to articulate our common purpose. Beyond radiology departments it is vital that

CIRSE/EFRS members seek representation within organs of governance locally, nationally and internationally. Without this it would be difficult for others to easily articulate the particular needs and future direction of IR.

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