

Simulation in radiology

Board of the Faculty of Clinical Radiology
The Royal College of Radiologists

Background

Following the previous Chief Medical Officer's directive on simulation,¹ there has been a drive to create simulation centres and to increase the use of simulation for teaching and assessment. Although simulation makes sense (practice makes perfect) and has worked in other environments (aviation and nuclear industries), the evidence to support its effectiveness in medical training remains limited. Intuitively, clinical radiological practice would appear to be a medical specialty in which simulation should be embedded.

Challenges of simulation

Simulation is being introduced at a time when study leave and study leave budgets are ever more restricted. Such pressures mean that simulation training, if it is to produce significant engagement, needs to be delivered at the workplace with minimal disruption to the teams involved. Radiology simulation needs to be contextualised for the needs of the specialty and delivered in a 'low-cost, pseudo-high fidelity' format in appropriate training surroundings. Simulation environments need to mimic realistically real situations for doctors and patients, but must have minimal impact on service delivery of the imaging department.

The challenge for The Royal College of Radiologists (RCR) is to support the development of simulation that has positive educational impact while being both deliverable and affordable.

Development of simulation at the RCR

Simulation in radiology training must be mapped onto and driven by the General Medical Council (GMC)-approved RCR curriculum and every simulation should have a specific purpose. New tools will be needed to achieve this; these should be integrated with existing training and assessment methodology.

The use of simulation and simulators in radiology is still being evaluated including the potential for use in assessment and revalidation. In order to achieve this significant work is needed to:

- Identify areas where simulation might be beneficial and can be inserted into the core and special interest diagnostic and interventional radiology curricula
- Establish collaborative partnerships. Simulation is undertaken by a wide variety of groups outside radiology, both within and outside medicine, and by a number of groups within the specialty. Potential partners for research, development and delivery need to be identified
- Encourage development of existing simulations – where simulations exist, their potential role in radiology needs to be recognised and harnessed. Examples would relate to multiprofessional teamworking and human factor simulation
- Develop and validate new simulations. The RCR is committed to lead on and develop an academic/research role in simulation for the specialty.

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Reference

1. Sir Liam Donaldson. 150 years of the Annual Report of the Chief Medical Officer: On the state of public health 2008. London: Department of Health, 2009.

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