

RADIOGRAPHY EDUCATION: The current and future picture in Arab countries

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Radiographers, also known as Radiologic Technologists, Diagnostic Radiographers and Medical Radiation Technologists, are healthcare professionals who specialise in the imaging of human anatomy for the diagnosis and treatment of pathology.

A career in radiography calls for various skill sets starting with excellent communication skills, professionalism, integrity, critical thinking, and problem-solving. The current radiographer practice in the Arab countries—in terms of education, skills, job status, job description and the future perspective—vary greatly in comparison to that of an international organisation or the practice in other countries

and therefore, needs to be identified and planned within the perspective of international standards and promises.

Arab countries currently consists of the 22 Arabic-speaking countries that occupy an area stretching from the Atlantic Ocean in the west to the Arabian Sea in the east, and from the Mediterranean Sea in the north to the Horn of Africa and the Indian Ocean in the southeast. Attempting to understand the various professional qualifications in many Arab countries was very difficult, as there is no organisation to regulate this profession. There is apparently lack of co-operation and communication between universities, schools offering radiography education and training.

A simple web search for societies or associations for radiographers in Arab countries will end with the deceptive result that there is no dedicated radiographer organisation body; few Facebook pages represent personal or regional academic or social activities. The website of the International Society of Radiographers and Radiological Technologist (ISRRT) was shown as the regional coordinator with representation from only three Arab countries (Lebanon, Morocco, and Tunisia). The importance of such a body cannot be overlooked. In addition to being professional organisation, such institutions also undertake the tasks of conducting educational workshops, conferences,

providing Continuous Medical Education (CME), Continuing Professional Development (CPD), support the rights of the profession, and undertake various other activities through its role as a non-governmental organisation in official relations with international organisations.

It is imperative to formulate a body that can be entrusted with the role of reviewing the status of radiography professions in term of legal, administration, standard qualifications and skills required to practice. Such an organisational body would be able to initiate the holding of forums to discuss education and regulation matters directly affecting professional practice, facilitate the link and association with other international and national organisations, and provide support, education and training programme to those in the radiography profession.

It is noticed that the majority of universities and institutes in Arab countries deliver a Bachelor's degree in radiology comprising of four years study duration. There are other countries that offer a three-year diploma in some institutes which are directly managed by the Ministry of Health. The graduates often work in Medical Imaging, Radiotherapy and Nuclear Medicine. To work in Ultrasound, a postgraduate degree or clinical experience is required in most of the countries while there are still some countries that do not permit the radiographer to work in ultrasound imaging. Most of the graduates were identified as competent to work in general radiography, portable, OT, fluoroscopy, dental and mammography.

Regarding Computed Tomography and Magnetic Resonance Imaging, there was a noticeable variation in the study programme as well as graduate competencies. Most of the programmes offer clinical practice during the study period which ranged from 500 to 1550 clinical training hours, whereas some programmes established a one-year internship programme in the last year of study.

Licensing of radiographers for practice is organised by different stakeholders in Arab countries and not by professional bodies. It varies from requiring no licensing exam for the graduates who obtained their degrees from local universities to requiring a licensing exam for every radiography professional who would like to practice and waiving of the practicing review for radiographers who obtained a licensing practice in USA, UK and



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other select countries.

Postgraduate studies in radiography are presently available only in two countries across the Arab nations. Sudan has five universities offering the course while the Kingdom of Saudi Arabia has two universities offering PG programmes in radiography. Although postgraduate programmes in Sudan started in early 2000, it is clear that these programmes are not able to attract international students and/or go beyond the boundaries of the national arena.

Future challenges

In order to improve the current status of radiography profession, many challenges ought to be taken into account:

Radiographer competency: With medical imaging becoming highly advanced; no person will be able to master the entire field of radiology. However, the integration of technology in work encourages the development of knowledge so as to be able to provide a high level of clinical effectiveness. Radiographers should be able to determine their core competency areas to provide comprehensive services, and integrate the applications of information technology to create added value for the referring clinician.

Research: Research in radiology is an integral part of clinical and physics research

domain. The lack of research output by radiographers in the Arab nations can be attributed to many reasons such as lack of research skills, lack of support from radiologists, administrative workload, and failure to recognize the merits of research. A policy to improve research culture should therefore be adopted by universities and professional bodies. Individuals should be motivated, educated and trained to participate in research.

As low as reasonably achievable (ALARA): Radiographers are considered the key personnel in radiation protection and patient safety, and it is therefore very important to understand how to apply ALARA to protect patients and other personnel when working in radiation and to be aware of ways to reduce the level of radiation exposure. It takes effort to implement the ALARA principles successfully.

Expand the radiographer's work role: Image interpretation equips radiographers with the skills to interpret radiological images correctly. Many countries worldwide including UK, Australia, Denmark, Norway, etc. study the ability of radiographers to do image reporting. The UK has designed programmes and systems to prepare the radiographer for image reporting, which is currently integrated with the National Health Services (NHS). The radiographer's accurateness and confidence in participating in preliminary clinical evaluation (PCE) and definitive reporting is critical and requires the support of and collaboration among universities, professional bodies, and health institutes.

A career to be proud of

Although radiographers' roles are often viewed negatively by many individuals, including those in the profession, this may lead to anxieties, loss of professional identity and diminished self-satisfaction. However, there are opportunities for radiographers to advance their roles and achieve their potential through collaboration, communication and building strategies.

I believe there are no limits for anyone willing to progress; and there's also no limit to what we can achieve; and together we can. **TR**

Prof Mohamed Abuzaid is a Speaker at the Imaging and Diagnostics Conference scheduled to be held from 29th January to 1st February 2018 at the Arab Health Congress.