Advanced practice in diagnostic imaging and radiation therapy

Following is a summary of the report of the Advanced Practice Working Group (APWG) to the Board of Directors of the Australian Institute of Radiography (AIR), May 2009.

A full copy of this report is available for download from the AIR website.

Introduction and background
There is an opportunity to establish new models of clinical care in medical imaging and radiation oncology, ensuring that quality of service and patient safety are prioritised above all else. Formal mechanisms for negotiation of practice boundaries must be put in place to ensure that advanced radiographic and radiation therapy practice are performed within an appropriate legal, ethical, moral, social and economic framework. This can only be achieved by interprofessional consultation, negotiation and teamwork.

Providing radiographers and radiation therapists with professional development opportunities, such as extended clinical roles, will increase the likelihood of them staying in the medical radiation workforce for longer periods. It will also provide the opportunity for radiologists and oncologists to focus their extensive knowledge, skills and ability on complex cases. The National Health and Hospital Reform Commission (NHHRC) recognised the need to change the skill mix of multidisciplinary teams, de-emphasising the influence of traditional professional boundaries that “restrict the ability to use fully the skills of the health workforce”.

Other countries have already implemented advanced practice models in their medical radiation workforce. In the United Kingdom, radiographers’ roles have been evolving in diagnostic imaging and radiation therapy for many years, both in response to service demand and in accordance with government policy aimed at modernising the healthcare system. In the United States, agreement was reached in 2002 between the American Society of Radiologic Technologists and the American College of Radiology on an Advanced Practitioner, Radiologist Assistant model designed to “… improve productivity, increase patient access to radiologic services, and enhance the overall quality of patient care”. In 2007 there were 10 education providers in the US offering RA programmes. In 2008, the New Zealand Institute of Medical Radiation Technology (NZIMRT) released a research report on role development and career progression that recommended the development of an Advanced Practitioner role.

A decision was taken in August 2007 by the AIR to establish the Advanced Practice Working Group (APWG). The terms of reference were to define an “Advanced Practitioner” model and how practitioners could achieve “advanced” status.

The proposed model
In this context, “advanced practice” is where a radiographer or radiation therapist performs a clinical practice, duty or task on a regular basis that is beyond the established core practice boundaries of their profession. The advanced practitioner demonstrates clinical leadership and a high level of knowledge, skills, ability and personal attributes. It is proposed that advanced practitioners in the medical radiation professions occupy positions titled “Clinical Specialist”, as listed below, with examples of the tasks that could potentially fall under each role.

Medical Imaging Clinical Specialists

Clinical Specialist in Accident and Emergency Imaging
- Triage medical imaging pathway for Emergency Department (ED) patients
- Close consultation with Emergency Physicians and Clinical Nurse Specialists
- Discharge patients from the ED who have no radiological abnormality
- Frontline reporting of appendicular and axial skeletal plain radiography images.

Clinical Specialist in Fluoroscopic and Interventional Imaging
- Perform gastro-intestinal fluoroscopic procedures
- Oversee the delivery of services in an angiographic suite
- IV cannulation and insertion of PICC lines and other tubes and catheters
- Preliminary reporting to a radiologist on examinations.

Clinical Specialist in Ultrasound Imaging
- Formalised reporting role on a limited range of examination types
- Perform percutaneous biopsies, fine needle aspirations and drainage
- Lead services attached to emergency departments and GP clinics
- Provide specialist sonography services.

Clinical Specialist in Breast Imaging
- First reporting of double-reported screening mammograms
- Perform core biopsy, fine needle aspiration and tumour localisation
- Perform both mammography and breast ultrasound
- Trained in counseling of breast cancer patients.

Clinical Specialist in Computed Tomography
- Triage patients and determine examination requirements.
- Intravenous cannulation and in the administration of contrast media.
- Provide a radiographer’s opinion to the radiologist.
- Perform biopsies and facet joint injections under CT guidance.

Clinical Specialist in Magnetic Resonance Imaging
- As for the Clinical Specialist in CT, with the exception of the last dot-point
- Assess patients with suspected eye or other foreign bodies and surgical implants.

Radiation Therapy Clinical Specialists

Clinical Specialist in Image Guide and Adaptive Radiotherapy
- Lead role in all on-line imaging verification and decision making
- May specialise in particular regions or in multiple treatment types
- Monitor and analyse 2D and 3D image data
- Develop new protocols and guidelines in consultation with the oncologists.

Clinical Specialist in Breast Radiotherapy
- High level skills and knowledge about all aspects of breast cancer treatment.
- Manage the breast cancer patient’s radiotherapy pre-treatment pathway.
Tasks range from patient counselling to target volume delineation.
Communication conduit between oncologists, radiation therapists and patients.

Clinical Specialist in Paediatric Radiotherapy
- Lead role in the management of paediatric cases (a familiar face).
- High level skills and knowledge relating to the paediatric cancer.
- Knowledge of treatment options, particularly chemo-radiation regimes.
- Provide family support and advice to the family and carers as needed.

Clinical Specialist in Palliative Radiotherapy
- Lead role of the delivery of radiotherapy to palliative care patients.
- Consultation with other members of the multidisciplinary team.
- Monitor the patient’s general health status while undergoing treatment.
- High level skills and knowledge of disease pathways and treatment options.

Clinical Specialist in Radiotherapy Treatment Review
- Clinical assessment of patients undergoing radiation therapy.
- Review patient records and recording matters of concern.
- Develop and establish protocols and guidelines.
- Communication with other members of the multidisciplinary treatment team.

Clinical Specialist in Integrated Cancer Care
- Provide support and advice to patients undergoing radiotherapy.
- Coordinate treatment of patients suffering from common cancers.
- Possess a sound knowledge of all stages in the treatment pathway
- Monitor of chemo-radiation regimes and side-effects.

Recommendations of the APWG

1 Accreditation and registration
Professional accreditation of advanced practitioners should be vested in the AIR and registration should be through the National Registration and Accreditation Board, as a category of radiographer and radiation therapist registration. The accreditation of postgraduate advanced practice education programmes should be performed by the AIR, reporting to the registration board.

2 The Interprofessional Practice Advisory Team
The Board of Directors of the AIR should engage other key professional organisations in discussions about advanced practice without delay. These discussions should initially focus on establishing the Interprofessional Practice Advisory Team (IPAT), with representation across the medical radiation professions.

3 Advanced Practitioner Advisory Panel
An Advanced Practitioner Advisory Panel (APAP) should be established on an ongoing basis within the AIR organisational structure, to stimulate the development of an advanced practice culture within the profession. Note: Adopted by the Board and below is a call for nominations to this Panel.

4 Meetings with government
That the AIR establishes a dialogue with the Department of Health and Aging, including with the Minister, senior bureaucrats and policy advisors in the Medical Benefits and the Mental Health and Workforce Divisions of the Department.

5 Leadership training
The AIR invests in the development of a programme of leadership training and supports locally-based leadership training opportunities for its Members.

6 Future consultations
That all stakeholder organisations (as listed in the report) are included on the dissemination list for this report and that they are invited to comment.

APAP VACANCIES
An invitation is extended to members to apply to join a new panel of the AIR. Nominees should possess a strong interest in the continuum of competency open to practitioners, with an emphasis on advanced practice. The invitation is open to members currently in practice, in academia or in management or business. Seven vacancies currently exist.

Interested applicants for the APAP position will need to address the following criteria
- Current financial member of the Australian Institute of Radiography
- Extensive clinical experience in Australian Medical Imaging or Radiation Therapy
- Demonstrable interest, knowledge or experience in advanced practice
- Available to travel to Melbourne up to twice per year
- Strong communication skills
- Reliability and demonstrated ability to meet deadlines

This is a Board appointment and written applications with a current CV should be submitted no later than COB on Friday 2nd October 2009 addressed to:

Executive Officer – Confidential APAP appointment
Australian Institute of Radiography
PO Box 1169
Collingwood
Vic 3066

Or email addressed to the Executive Officer air@air.asn.au
(submissions must be in Word format as an attachment)