Advancing practice in nuclear medicine: A Euro-American perspective

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Introduction
In October 2009, the European Association of Nuclear Medicine (EANM), together with the [American] Society of Nuclear Medicine (SNM), formed a joint working party to consider advanced and entry level practice for nuclear medicine radiographers and technologists. The intention of the working party was to help stimulate debate, on a Euro-American level, about the perceived value or otherwise of advancing practice within European countries and America. It was not the intention to say whether countries should or should not attempt to advance their practice; this would be for them to determine.

At the same time the working party proposed international definitions for entry and advanced levels. Comments were solicited on draft proposals through conference papers in South Africa, America, Austria and Croatia. In August 2011, a discussion document was produced and circulated to relevant stakeholders, eg national professional bodies. The working party consisted of 11 people from five disciplines and six countries (America, England, Italy, Croatia, Ireland and Germany); contributions were also made from South Africa, Australia, The Netherlands, Portugal, Romania, Denmark and Norway.

International definitions
During working party consultations it became very difficult to propose specific competencies that could be considered as advanced or entry level that would be acceptable to all countries. Consequently non-specific statements were generated.

Entry level:
- A competence and skill set that is considered necessary to ensure that nuclear medicine procedures are conducted to an appropriate level.
- The competence and skill set would be engendered during basic training/formative professional education.
- The competence and skill set scope will vary between countries; various factors account for this (eg law, politics, culture, economy).

For advanced practices the following were proposed:
- A competence and skill set that is acquired after basic training.
- The competence and skill set would be at a higher cognitive and clinical level than basic training/formative professional education.
- The competence and skill set would seek to improve patient care and management.
- The competence and skill set would seek to offer clinical career progression opportunities.
- The competence and skill set scope will vary widely between countries; various factors account for this (eg law, politics, culture, economy).

When the above statements were interpreted within individual countries, a wide variation of specific examples for advanced and entry practices emerged. Initially, this presented the working party with a problem when trying to classify a role that was considered to be ‘advanced’ in one country but ‘entry’ in another. However, this resulted in a simple model being proposed, in which two tiers of advanced practice have been described. On using this model and our definitions the following example responsibilities were readily classified:

- **Entry level**
  - Preparing the room ready for the patient to be scanned
  - Preparing the patient ready to be scanned

- **Advanced Practice 1** – entry level in some countries; advanced in others
  - Administering the radiopharmaceutical
  - Processing and presentation of image data

- **Advanced Practice 2** – advanced in all countries
  - Formal interpretation of images and image data (ie determining a diagnosis)
  - Leading a cardiac stressing session.

In some countries scanning the patient, image processing, patient care and management and performing equipment quality control are not included in basic training; consequently they are considered to be advanced practices (Advanced Practice 1). While the working party agreed from the outset not to judge practices in other countries, this finding does raise the question of whether there should be a minimum scope of practice for entry level in order to call oneself a nuclear medicine radiographer or technologist.

Opinions on and examples of entry and advanced practice
International working party consultation exercises have solicited a wide range of opinions about how entry and advanced levels (by any country definition) would be perceived within individual countries. Responses varied from highly negative to highly positive; this variation was anticipated. The working party discovered that some countries have quite similar expectations for entry level scope of practice and where similarities exist their educational approaches have tended to be similar too. Some advanced practices are starting to gain popularity in a number of countries. Examples include non-medical cardiac stressing, the administration of radiopharmaceuticals and the administration of adjunct drugs (eg diuretics). By contrast some advanced approaches are restricted to an extremely small number of countries. Examples include reporting of images/image data and the requesting of further radiological imaging. Interestingly several countries have already started conversations about extending the scope of entry level practice and the desire to introduce advanced competencies.

EANM conference 2011 (Birmingham, UK)
Using the working party discussion document as a catalyst for debate, the first formal international discussion on advancing practice will be held within the EANM 2011 Conference during an interactive session (Monday, October 17, 8-9.30am, http://eann11.eanm.org/). If sharing your own experiences of advanced practice in nuclear medicine from Britain interests you, then please come along. In this session representatives from national societies will be invited so that they will have an opportunity to outline their perspective on advancing practice within their own country. A multi-professional international panel has also been assembled to consider its points of view too.

Working party members
Professor Peter Hogg, England, (European lead); Professor Kristen Waterstram-Rich, USA (American lead); Giorgio Testanera (Italy); Helena Medvedec (Croatia); Suzanne Dennan (Ireland); Professor Wolfram Knapp (Germany); Professor Nigel Thomas (England); Kathy Hunt (USA); Professor Martha Pickett (USA); Aaron Scott (USA); Professor Gary Dillehay (USA).