

## ▶ State of the Art and Technologist Role in Radiopharmaceutical Preparation

J. Ballinger (London)

Routine production of  $^{99m}\text{Tc}$  labelled radiopharmaceuticals involves elution of a generator and addition of  $^{99m}\text{Tc}$  to a range of lyophilised kits. The process is the same around the world, though the details of the conditions under which the products are prepared varies between countries. While there may be legal restrictions on the person who releases the products for use, the preparation steps can be performed by suitably trained individuals from a variety of backgrounds. In many countries, technologists perform this role, whether their background is nuclear medicine, medical physics, pharmacy, or chemistry.

Training a new member of staff, whatever his/her background, involves explaining the principles, then demonstrating the procedures. The new person then is allowed to conduct the procedure under supervision. Depending on the level of the person, he/she may eventually be allowed to conduct the procedure without supervision. It is useful to have a training document, such as an Activity Competency Record (ACR), which provides evidence of the training the person has received and their demonstrated competence.

Ultimately the person who takes responsibility for the quality of the products and releases the radiopharmaceuticals for use (Responsible Radiopharmacist or other term, depending on country) must be satisfied that the technologist is competent. In some countries, the regulatory authorities may also inspect training records.

As new tracers, such as  $^{68}\text{Ga}$  labelled peptides, are introduced, the role of the radiopharmacy technologist may expand to include aspects of production of these agents.

Technologists can play an essential role in the provision of radiopharmacy services and this role is likely to expand in the future. It is important that nuclear medicine technology training programmes provide adequate coverage of this area in order to equip the next generation of radiopharmacy technologists.

Oct.19