

## Portfolio Guidance Notes

### The RCT Evidence Criteria – Nuclear Medicine

In order to demonstrate to The RCT assessment panel that you are working at a sufficient level, it is necessary to produce a portfolio of evidence detailing how you meet each of the standards. Not everyone will have first-hand experience of every aspect and in these cases you will need to demonstrate an understanding of the subject in lieu of being able to present first hand evidence. First hand evidence is however preferential and in many cases without this you may not meet the requirements for entry.

To assist you with the production of your evidence portfolio further, the RCT has given examples of the types of evidence which could be seen as acceptable for each of the criteria, details of which are below.

#### **A. Safe Working Practice**

1. Provide evidence that you are competent with a range of generic skills including mandatory training e.g. infection control and basic life support.
  - Explain how health and safety affects your day to day role.
  - Provide details on infection control measures you adhere to when scanning patients.
  - Show you have completed your mandatory infection control, life support and manual handling training and explain how this relates to your work.
2. Demonstrates an understanding and application of health and safety and risk management in all aspects of the Clinical Technologists role.
  - Can you demonstrate how your local health and safety policies cover your work or show an understanding of the risks around working in a clinical setting/lone working? Can you provide evidence how you meet these requirements in your day to day role?
  - Show you have completed your mandatory health and safety training and explain how this relates to your work.
3. Demonstrates an understanding of, and works within, all relevant legislation to their role including departmental local rules and employers procedures.
  - Can you identify relevant legislation which governs your role? Are you able to identify the roles of others such as radiation protection advisers, COSHH assessors or manual handling facilitators?
4. Perform health and safety risk assessments (including radiation risk assessments for ionising radiation) in accordance with standard operating procedures.
  - Have you performed any risk assessments? If not you may need to learn how to do one and carry out a range of assessments covering several aspects of your role. These may include COSHH, decontamination, moving and handling or radiation risk assessments.
  - If you are unable to perform a risk assessment you could review one already carried out and comment on its suitability and how it applies to the workplace.

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5. Provide evidence of radiation incident reporting.
  - Are you involved with reporting or investigating incidents? Provide either evidence that this is part of your role or demonstrate an understanding of the processes involved.
6. Demonstrates effective communication skills and team working.
  - Can you demonstrate who you communicate with in your daily role and how your team working benefits the service?
7. Demonstrates a professional approach to all aspects of the Clinical Technologists role.
  - Provide evidence to show how you have dealt with challenging situations in a professional manner.
  - Describe how you work on a day to day basis in a professional manner, how do you comply with patient confidentiality or governance issues.
  - Do you have any direct feedback from patients from patient satisfaction surveys or thank you cards?
8. Assists in giving instructions to patients and colleagues regarding radiation hazards, doses and restrictions.
  - Explain what instructions you give to patients following routine scans. Do you provide any additional advice for patients with young children? Pregnant or breastfeeding women? Patients who are due to fly in a day or two?
9. Demonstrates reflective practice as part of the learning process.
  - Provide evidence of reflective practice and how this has changed your technique or how you carry out a specific task.

## **B. Equipment Management**

1. Assist in the process for the procurement of equipment, accessories or consumables.
  - Show that you are involved in the procurement of consumables or have had some input into the procurement process for a new piece of equipment.
2. Demonstrates the use of an equipment inventory system.
  - Explain how an equipment inventory system is used in your department. Whilst you may not use this inventory routinely you need to be able to show that you understand its purpose and the benefits to the department of having one.
3. Performs cleaning/decontamination of equipment.
  - Explain how you clean equipment prior to and after use. Do you have any records of this which you can provide?
  - What additional cleaning do you perform if a patient has MRSA or other infectious diseases?
4. Performs routine equipment quality control checks and review and interpret results.
  - Explain what quality control checks you do and how you determine if the equipment is safe for use.

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5. Performs a range of fault finding and first line user maintenance.
  - Explain the procedure you follow if a piece of equipment is out of specification/faulty and what you would do?
6. Demonstrates knowledge of radioactive source management and disposal.
  - Outline how your department manages their radioactive unsealed sources. What checks are done before they are administered into a patient?
  - How do you dispose of radioactive material? What records do you keep and what legislation are you complying with?
  - What is your role in this process?
7. Demonstrates an understanding of quality management systems.
  - Do you work under a Quality Management System? If so, what is your role in maintaining it? How are your procedures affected by the QMS? What benefit do you gain from it?
  - If you don't have a Quality Management System, show that you understand what the process entails and how it might affect processes within your department.
8. Observe and assist with equipment life cycle procedures as an equipment user.
  - Show that you have an understanding of the periodic tests which are performed on equipment in your department. How often are they done and what is their significance. Why are they not required more frequently?

### **C. Nuclear Medicine**

1. Perform all aspects of patient preparation for in vivo/imaging/therapy treatment and compliance with legislation. Adhering to standards of professional practice throughout.
  - Provide evidence to show that you are able to independently carry out patient preparation prior to a Nuclear Medicine procedure.
  - What checks are done prior to administration? Are there specific checks which are done before specific tests/scans? E.g. thyroid imaging/treatment, FGD PETCT scan etc.
  - What piece of legislation are you complying with?
2. Operate equipment safely across a range of acquisitions and recording techniques to produce high quality results for interpretation.
  - Provide evidence to show that you are able to independently carry out a wide range of diagnostic Nuclear Medicine studies.
3. Assist with a range of therapy procedures.
  - What therapies are carried out in your department?
  - Outline your role in these procedures. If you are not currently involved explain how the treatment works and what the anticipated benefit to the patient will be.
  - Are there specific restrictions placed on the patients after the administration? If so explain.

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4. Assist with commissioning checks on a range of systems, and review and interpret results.
  - Can you provide evidence to show that you have been involved in these checks or show you have an understanding of acceptance testing and the standards that the results are checked against?
5. Assist in appointment scheduling.
  - Outline your role with this. Explain some of the challenges in booking specific Nuclear Medicine studies. E.g. a Thyroid uptake scan on a patient who takes Thyroxine.
6. Assist with clinical audit.
  - Does your department have an audit schedule? What has been your involvement with this? Can you provide evidence?
  - If you haven't been involved can you explain the rationale behind a particular audit and how the results changed/modified working practices?
7. Demonstrates accurate recording keeping.
  - Provide evidence to show your involvement in record keeping in the department. E.g. daily checks for the dose calibrator or gamma camera qc etc.
8. Performs a range of QC checks including the environment; review and interpret results.
  - Outline the daily QC checks that you do in your department? Is there any additional periodic checks made? What is your involvement in this?
  - How do you decide the equipment is safe to use? What are the parameters you base this decision on?
9. Performs a range of radioactive manipulations to include activity calculations and measurements.
  - Demonstrate how you calculate the volume required for a patient to get a set activity for different tests and isotopes.
  - Explain the method to accurately measure the activity prior to administration.
  - Are there any isotopes/tests which require specific measuring techniques? E.g. using a Thomson copper filter.
  - Explain some of the limitations of assaying, e.g. how does the geometry of the source affect the activity measured?
10. Performs a range of tests to demonstrate problems associated with assay.
  - Can you explain the QC process that you follow?
  - How would you check the calibrator for accuracy?

## **D. Radiopharmaceuticals**

1. Complete training courses for venous sampling, the administration of radiopharmaceuticals and the giving of adjunct drugs and perform these tasks.
  - Provide evidence to show you have been appropriately trained to administer radiopharmaceuticals and other medicines.
  - Additionally provide evidence to show you are an entitled operator under IR(ME)R.

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2. Adhere to relevant standards of professional practice as defined in good manufacturing practice.
  - Explain how you ensure you comply with good manufacturing practice standards.
3. Elute the  $^{99m}\text{Tc}$  generator and reconstitute commercial kits in accordance with written procedures.
  - Show records to demonstrate you are able to do this and are 'signed off' to carry out these tasks.
  - If your department doesn't have its own Radiopharmacy you must visit a Radiopharmacy department. Discuss the processes involved in radiopharmaceutical production. If this isn't possible you must provide evidence to show you are familiar with the processes in a Radiopharmacy department.
4. Observe or assist with cell labelling procedures.
  - Provide documentation to show you perform cell labelling. If you are not carrying out this activity show you have observed it and explain how it's done. Explain your role in this procedure.
  - Describe the differences in the process of red cell and white cell labelling.

### **E. Radiation Transport and Dosimetry**

1. Perform source checks and completes all relevant paper work prior to transport.
  - Outline the checks which are carried out on all radioactive sources prior to transport.
  - What paperwork is required? What documentation does the driver need?
  - Provide evidence of how you complete this.
2. Perform sealed source leak tests, review results and take appropriate action.
  - Describe the procedure for performing leak tests and provide documentation that you have done them.
3. Perform contamination checks and maintain appropriate records.
  - Provide evidence of contamination monitoring you complete.

### **F. Good Scientific Practice**

1. Adhere to relevant standards of professional practice as defined in Good Scientific Practice. Demonstrate that you have read, understood and comply with this document in all aspects of work.
  - Good Scientific Practice is a document written by the Academy of Healthcare Science, a copy of which is available on the Academy for Healthcare Science website.
  - This document sets out the principles and values expected of the Healthcare Science workforce.
  - Demonstrate how you have the ability to recognise your own limits of technical expertise and use professional judgement in all aspects of clinical and technical practice.

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