



Australian and New Zealand Society of Nuclear Medicine Limited

Mentoring and the Professional Development Year: Guidelines

1. Identification

- 1.1. Australian and New Zealand Society of Nuclear Medicine Inc., herein after called the "ANZSNM".
- 1.2. ANZSNM Technologist Interest Group, herein after called "TSIG".
- 1.3. Nuclear Medicine Internship Committee, herein after called "the NMIC".
- 1.4. Professional Development Year, herein after called "PDY".
- 1.5. Intern Program – Professional Development Year in Victoria administered by the NMIC.
- 1.6. Graduate Technologist – a technologist having completed an approved undergraduate course of study in Medical Radiation Science (Nuclear Medicine).
- 1.7. Overseas Qualified Technologist – a technologist with qualifications recognised in a country other than Australia who has passed the TSIG's Overseas Qualification Assessment examination. Hereinafter referred to as an OQ technologist.
- 1.8. PDY Technologist – a technologist completing their professional development year in a PDY program approved by the TSIG. This term may be applied to either a graduate technologist or an OQ technologist.
- 1.9. Intern – PDY technologist participating in the Victorian Intern Program.
- 1.10. Approved workplace – a Nuclear Medicine Department that has been approved by the TSIG for technologist training.
- 1.11. Mentor – an accredited practicing technologist, recruited by the TSIG.

2. Introduction

The Professional Development Year is an important element in the training and development of a Nuclear Medicine Technologist. Graduate technologists, having completed their formal education, do not simply pass or fail their professional development year but should instead undergo a smooth transition from graduate to practitioner, with the support both of their workplace and of the Society. Similarly, OQ technologists use this period to familiarise themselves with Australian workplace practices and any legislation. This is to ensure adequate standards are met.

The Victorian Internship Program is a PDY administered by the NMIC under the auspices of the TSIG's Mentoring and PDY Program. The TSIG recognises the unique situation in Victoria and will maintain close liaison with the NMIC. Communication will occur regularly between the Chairperson of the NMIC and the PDY/Mentor Program Coordinator to ensure the Intern program complies with all TSIG regulations and appropriate records are kept.

The mentor program is an initiative of the ANZSNM TSIG. It has been introduced to ensure that each new graduate and OQ technologist has access to a mentor. Each mentor is an experienced Nuclear Medicine Technologist recruited by the TSIG to provide support and guidance to them during their professional development year or intern year. The mentor will give PDY technologists and Interns an independent party with which to discuss their progress and will generally provide an empathic ear. Mentoring is not intended to be a rigid discipline but one

where, within established criteria, the Mentor and PDY technologist develop a good rapport and support and encouragement may be sought and given as needed. In the case of the Victorian Intern Program, Interns will be mentored by members of the Nuclear Medicine Internship Committee (NMIC), who satisfy the criteria and are enrolled as mentors in the TSIG PDY program.

In addition to recruiting mentors, the TSIG provides a syllabus that is intended to assist workplaces in the development of a PDY program that ensures PDY technologists have exposure to all areas of Nuclear Medicine Practice. It must be understood that whilst the TSIG is trying to ensure that all graduates get the maximum benefit from their professional development year, it is not the TSIG's intention to interfere with the approved workplace. The workplace will still be responsible for the program of an individual technologist but it is hoped that this program will be able to address most if not all of the topics that are outlined in the PDY program syllabus.

3. Syllabus

It is expected that a graduate practitioner in the first post-graduate year will require the guidance of more experienced technologists and should therefore not be placed in sole practitioner situations or work unsupervised. Overtime and on-call experience must be supervised. OQ technologists must also be supervised during their professional development year experience.

It is recommended that there be one accredited technologist per PDY technologist in the workplace at all times to provide guidance.

The requirement for supervision does not imply that direct observation is essential at all times. The level of supervision will be left to the discretion of the workplace supervisor. As the graduate develops competency in the different facets of Nuclear Medicine the level of supervision can be adjusted accordingly.

Suggested Syllabus

All components of the syllabus for the PDY/Mentor program are classified as either essential or desirable. On granting a department approval it has been assumed that the department is capable of meeting all the **essential** requirements.

Essential staff

Nuclear Medicine Specialist working 0.5 EFTE with cover to suit Medicare requirements in the event of leave.

Accredited technologist 1.25 EFTE (if only 1 accredited technologist they are covered for leave)

Appointed Radiation Safety Officer

Desirable staff

Physicist

Nursing staff

Radiopharmacist

Essential Equipment

Gamma Camera – at least one with SPECT capability

Computer processing

Dose calibrator

Radiation monitor/survey meter

ECG monitor

Equipment for lung ventilation – can be either Technegas, Aerosol or Xenon

Desirable Equipment

Biological safety cabinet

Gamma counter

Gamma probe

Treadmill or exercise bike

Wet or dry film processor

Beta counter

Centrifuge

Autoclave

Archiving and data storage/retrieval devices

Essential Documentation

An organised 12-month program for the PDY technologist (suggested time line attached)

Orientation/induction program for new staff

Patient care and infection control manuals

Records of ordering, receipt administration and disposal of radionuclides

Personal radiation dosimetry policy and records

Protocol and procedure manual

Patient appointment records

Essential Procedures

Therapeutic nuclear medicine must include low dose (<1GBq) Iodine-131 therapy. If this is not performed on site then department approval will be conditional upon the PDY technologist receiving a rotation to a department to gain this experience.

Cell labelling techniques.

Wide range of scintigraphic procedures.

Gamma camera QC

Desirable Procedures

Therapeutic use of ³²P, ⁸⁹Sr, ¹⁵³Sm, ⁹⁰Y silicate, ⁹⁰Y Lipiodol

Paediatric nuclear medicine studies

PET or CoPet studies

SPECT/CT

PET, PET/CT

Tracer studies.

Essential Facilities

Fully rotational hot laboratory

If not available then department approval will be conditional upon technologist being provided with a rotation to experience reconstitution and dispensing. This can be at another department of your choice or with a company like Syncor etc.

Workplace library

Inservice educational programs

Desirable Facilities

Therapy rooms or hot cell

Internet access

Essential Experiences

CPR/Basic Life Support training

Hospital safety orientation

Manual handling

IV injection/cannulation – in centres where it is mandatory for staff

Desirable Experiences

IV cannulation course – in centres where it is not mandatory

Exposure to Allied Health areas such as Radiology, CT, MRI, Ultrasound, Radiation Therapy,

Intensive care, Coronary Care, Emergency, Operating suite, Physiotherapy, Speech pathology,

Occupational therapy, Clinical pathology, Pharmacy clean room, Cardiac Catheter Lab,

Echocardiography and Lung Function etc. Ideally one visit per quarter or one per progress report to be documented.

On Call

If a PDY technologist agrees to participate in the on call roster they may only do so after 6 months work experience. It is **essential** that either a Nuclear Medicine Specialist or Accredited technologist **supervise** on-call experiences, either in person or over the telephone.

Interns in the Victorian program are not permitted to perform On Call procedures unless under the direct supervision of an Accredited technologist.

Suggested Time Line for 12 month program

1 st Day	*	Department orientation
1 st Week	*	Centre/Hospital orientation and introduction to safety codes
1 st Month	*	Latest date for completion of CPR/BLS training
	*	Latest date for completion of manual handling training
3 rd Month	*	First progress report due
	*	Latest date for first rotation to hot lab
	*	One visit to an allied health discipline to have been completed
6 th Month	*	On call may commence with supervision (except in Victoria)
	*	Second progress report is due
	*	Latest date for first exposure to therapeutic nuclear medicine
	*	A visit to a second allied health discipline to have been completed
9 th Month	*	Latest date for IV cannulation course to be organised or completed
	*	Cell labelling experience to have commenced
	*	Third progress report due
	*	Visit to a third allied health discipline to have been completed
12 Month	*	All areas of program to be completed
	*	Final progress report due with application for full accreditation

The progress reports will be arranged under the following headings:

Patient Care

- concern for physical and emotional need of the patient
- ability to establish rapport and identify patient needs
- awareness of the need for confidentiality
- development of patient observation skills

Interpersonal Skills

- ability to work as part of a team
- oral and written communication skills
- general attitude towards work and co-workers

Administrative Abilities

- capacity to prioritise services
- awareness of medicare billing/accounts
- ordering of radiopharmaceuticals/supplies
- patient preparation

- ability to take bookings
- writing protocols
- quality management skills
- ability to advise referring clinicians, other health professionals and public regarding any Nuclear Medicine procedures; practice policies

Hospital Safety

- hospital codes of practice
- infection control procedures
- safe lifting technique
- incident reports

Radiation Protection

- awareness of exposure to patients/staff etc
- understanding of ALARA principle
- precautions to limit self exposure
- storage and disposal of radioactive waste
- awareness of State/territory Legislation ie. Radiation Safety Act and Regulations
- awareness of necessity for licensing/registration of NMT if applicable in that State

Laboratory Skills

- reconstitution and dispensing of radiopharmaceuticals
- blood labelling procedures
- aseptic technique
- cold laboratory procedures
- radiopharmaceutical QC
- QC for dose calibrators, probes etc

Radionuclide Administration

- intravenous, inhalation and oral administration
- therapeutic administration of oral Iodine –131
- preparation of a therapy room or hot cell
- knowledge of requirements to facilitate administration of other therapeutic radionuclides eg. 89Sr, 32P, 153Sm

Diagnostic Imaging

- acquisition and processing of wide variety of scintigraphic procedures
- paediatric nuclear medicine (exposure to the equivalent of 2-4 weeks is recommended)
- camera networks, data storage & retrieval, PACS

- familiarity with camera QC procedures
- quality control on film production (wet/dry)

Exposure to Allied Health Fields

- where available Ultrasound, PET, MRI
- observation of CleanRoom in Pharmacy
- general medical imaging procedures
- operating theatre, cardiac cath lab etc

Professional Development

- participation in journal club, film reading sessions
- attendance at conferences, scientific meetings, continuing education events
- presentations/case studies
- joining professional bodies
- willingness to participate in research trials etc.

4. Mentors

Recruitment and Eligibility

The TSIG will determine the number of mentors accepted for the program. This will depend on the number of technologists undertaking a Professional Development Year in each state. Technologists wishing to become mentors will need to submit a completed mentor application form to the TSIG (available from the ANZSNM Secretariat).

Mentors will receive professional recognition by the Society for being mentors, either through continuing education points, certificate presentation or some other means.

Mentors will be selected from technologists meeting the following criteria:

- Accreditation with the ANZSNM
- Current practicing technologist
- 3 years post graduate experience
- enthusiastic, available, flexible

Each mentor will be allocated up to three (3) graduates.

The NMIC in Victoria will nominate those of its members who satisfy the TSIG's criteria as mentors specifically for Interns enrolled in the Victorian Intern Program. Those NMIC members must submit mentor applications to the TSIG and be added to the Mentor Database.

Desired Qualities

People may be reluctant to volunteer to be mentors because they feel they won't have much to offer and it will be too much work. A good mentor does not need to be a "supertech" but they should demonstrate the following qualities in order to develop a good mentoring relationship:

- willingness to be a mentor
- knowledgeable, interested and accessible

- a good listener, able to observe confidentiality
- well networked and willing to share resources

Education

It is envisioned that as the program becomes more established, then the TSIG will develop some form of training or guidance for those volunteering to become mentors. This may be incorporated into the continuing education program as a workshop or weekend seminar or as a session at the annual scientific meeting.

Responsibilities

A mentor will be allocated a maximum of three (3) PDY technologists per year and will be expected to initiate contact with each of their charges at least once a month (i.e. 12 times) over the course of the year.

The initial contact should be made in the first month of the PDY program.

At the designated review stages of the PDY program, the mentor will be asked to review the progress reports completed by the workplace supervisor, adding their own comments in the section provided, and then forward it to the ANZSNM Secretariat. In addition to reviewing the progress report, the mentor is expected to prepare a one page report for the TSIG, in point form, outlining observations made, issues raised, problems encountered, and outcomes achieved and including any suggestions for improvements in further years.

The NMIC in Victoria will review progress reports for Interns and forward copies to the TSIG.

Relationship with the PDY/Intern

The role of the mentor and their relationship with the PDY technologist will include the following

- to encourage the exploration of ideas, share resources and knowledge
- encourage the graduate to take responsibility for their own learning
- listen when they have a problem and provide appropriate advice to confront negative intentions before they create problems in the workplace
- assist the PDY/Intern to identify and solve problems
- act as a mediator if minor conflicts occur

It is most important that a relationship of trust develops between the mentor and the PDY technologist. The mentor must be able to maintain confidentiality at all times. It is equally important that the mentor not be drawn into personal conflicts but remains impartial, able to see both sides of any dispute.

It is not recommended that mentors give advice to any PDY technologist enrolled in the program other than those appointed to them by the TSIG.

Additional guidelines

Mentors are discouraged from interfering in the workplace. They must appreciate that the PDY program is ultimately the responsibility of the workplace supervisor. If they feel that they should visit the workplace in their capacity as a mentor then they should first seek an invitation from the Chief NMT and should also obtain the approval of the TSIG. At all times, they must refrain from criticising the practices employed in the approved workplace. Instead, they might suggest alternative ideas based on their own experience.

If major conflicts develop between the graduate and the workplace, the mentor should not attempt to mediate any dispute without first discussing the issue with the TSIG.

** NB: Mentors in the Victorian Internship Program have roles and responsibilities which differ from those of mentors in the PDY Program. The TSIG recognises the specialist role of the NMIC in maintaining the Victorian Intern Program to the standards required.

5. PDY technologists/Interns

Expectations

Each PDY technologist/Intern will be assigned one mentor from outside their workplace. Ideally their mentor will be from the same State or alternatively the nearest other State.

In the case of Victorian Interns, the Mentor will be a member of the Nuclear Medicine Internship Committee, who is also enrolled as a Mentor in the PDY/Mentor Program.

A PDY technologist/Intern may contact their mentor at any time during the program.

PDY technologists/Interns are not to supervise other PDY technologists, interns or non-accredited technologists.

The PDY technologist will need to:

- Show commitment to the relationship and the program
- Be flexible and look at different points of view
- View mistakes as learning experiences
- Use the network established by their mentor
- Take responsibility for their own professional development
- Be involved in completion of their progress report with their workplace supervisor, which will then be forwarded to their mentor and to the TSIG.

Responsibilities

It is the responsibility of the PDY to:

- ensure that Progress Reports are completed on time and forwarded to the mentor;
- ascertain that their employer has **current** approval for the training of Technologists prior to signing an Employment Agreement;
- comply with all Regulatory, Licensing and Registration requirements of the State in which the PDY is undertaken;
- notify the TSIG of ANY change in employment circumstances of the PDY (e.g. loss of employment, significant change in hours worked, change of employer).

6. References:

TSIG Regulations, February 2013

Lacey,K. " MAKING MENTORING HAPPEN: A SIMPLE AND EFFECTIVE GUIDE TO IMPLEMENTING A SUCCESSFUL MENTORING PROGRAM". NSW, Business and Professional Publishing Pty.Ltd., 1999.