Bachelor of Medical Radiation Science

Student Guidelines for Working With Ionising Radiation

Radiation Guidelines

The Radiation Protection and Control Act 2021 and Radiation Protection and Control Regulations 2022 govern all use of ionising radiation in South Australia.

ALARA principle (As Low As Reasonably Achievable) is required by legislation and must be always adhered to.

Radiation dose threshold for Medical Radiation staff and undergraduate students working with ionising radiation is 1 mSv per year, which is the dose limit for a member of the public. (The current annual effective dose limit for radiation workers is 20 mSv averaged over a period of 5 consecutive years.)

Personal radiation monitors (Luxels) are issued to all medical radiation students. For details of proper Luxel use and care see the Student Luxel Policy.

All University and Clinical Placement activities, undertaken by undergraduate students must be under continuous supervision of a licensed radiation worker. This licensed person is responsible for the safe use of ionising radiation. At clinical placements, students are required to read and follow the radiation safety manual of the department. At all times, the University requirements are the minimum standards and must be followed.

Local Radiation Safety Officer (RSO) for Medical Radiation Science is Dr Michala Short, office BJ1-27 P: 08 8302 2089, E: Michala.short@adelaide.edu.au

Pregnancy

If you are pregnant, please inform the Program Director Ms Cristina Blefari who will make additional arrangements. Discussions are confidential and study adjustments are made only with student's permission.

Pregnancy does not normally prevent students from continuing in their studies, provided safe work practices are employed when working with ionising radiation. This includes a monthly foetal radiation monitor in addition to quarterly monitoring.

A radiation dose limit of 1 mSv per year is allowed to the foetus, which is treated as a separate individual from the mother.

Some considerations for clinical rostering may include avoiding some procedures to limit foetal exposure, for example:

Medical Imaging

- Fluoroscopy and angiography in a suite without permanent protection such as a control booth
- Mobile image intensifier radiography, e.g. theatre

Radiation Therapy

- Brachytherapy, due to risk of incident with radiation sources and use of fluoroscopy without permanent protection
- Unsealed source therapies such as I131

Nuclear Medicine

- Prolonged proximity (less than 1-2m) with therapy patients
- Preparation of Iodine doses or spill clean-up
- Preparation or administration of PET and therapy doses

Further Reading

AU Medical Radiation Student Luxel Policy

International Commission on Radiological Protection (ICRP) Publication 103, The 2007 Recommendations of the ICRP