Medical Radiation Sciences
*Radiation Therapy Clinical Practice 2*

# Information for Clinical Mentors

**September 8th – October 17th, 2025**

**6 weeks clinical placement**

These students are commencing Clinical Practice 2 course (block B) in the third year of their Radiation Therapy degree.

Since the CP2 block A (3-week placement) in April, students have completed three courses: **CT-PET, RT studies 4** and **Specialised Medical Radiation.**

These academic theory courses incorporated the following concepts and skills:

- **CT & PET:** image evaluation, procedural protocols, principles of co-registration, image quality, artefacts, post-processing and QA. CT/sim protocols, basic procedures and QA, image manipulation for planning prep, image fusion and contrast.
- **RT studies 4:** Head and neck malignancies and IMRT techniques, blood-borne disease sites, lymphomas, and paediatric malignancies. Practical sessions including electron data and set-up, H&N simulation and treatment image matching (thorax and H&N) and CBCT pelvis, Quality assurance and incident reporting, TBI & CSI techniques. Planning included: ICRU 62&71, electron breast boosts, step and shoot, IMRT, H&N, bolus, TCP/NTCP evaluation and an introduction to VMAT and particle therapy.
- **Specialised Medical Radiation:** MRI Image evaluation, procedural protocols, principles of co-registration, image quality, artifacts, post-processing and QA. Ultrasound, MRI in RT planning and brachytherapy. Emerging technology was explored, including MR-Linacs, Adaptive RT and Artificial Intelligence in RT.

Before the Clinical Practice 2 placement, the students had engaged in a **4-day pre-clinical workshop** at the university, where problem-solving and additional planning skills were developed and enhanced. This week incorporated concepts and skills, including:

- Raystation planning skills: Virtual simulation spine.
- Raystation planning skills: VMAT prostate
- Completion of an SXR treatment competency assessment (one of the four required in the CP2B course)
- VERT – Electron setup practice and CBCT image matching.
- SABR and vacbag ancillary equipment set up.

**Expectations of students for CP2 (total 6 weeks):**

- The main objective of the placement is to continue to participate in radiation therapy procedures.
- During the 6-week placement, there are **4 treatment and 2 planning** practical assessments, and several participation records that need to be additionally recorded for simulation, planning patient care and communication.
- In the student's clinical workbook, there is a section to be filled in by the student reflecting on their 6 weeks of experience. The clinical report is to be completed by the **Clinical Supervisor in the clinical department** in collaboration with the mentors involved with that student during their placements.
- There **is** the expectation that students will exhibit **safe practice** and **professional behaviour.**