

Position Description

Classification:	Up to Grade 5 - Medical Physicist
Business unit/department:	Radiation Oncology Ballarat
Work location:	Austin Hospital <input type="checkbox"/> Heidelberg Repatriation Hospital <input type="checkbox"/> Royal Talbot Rehabilitation Centre <input type="checkbox"/> Other <input checked="" type="checkbox"/> Ballarat-Austin Radiation Oncology Centre
Agreement:	Victorian Public Health Sector (Medical Scientists, Pharmacists and Psychologists) Single Enterprise Agreement 2021-2025
Employment type:	Fixed-Term Full-Time
Hours per week:	38
Reports to:	Medical Physics Manager via the Deputy Medical Physics Manager
Date:	05/2025

Position purpose

This is a clinical and technical role based at the Ballarat-Austin Radiation Oncology Centre. The key focus of this position is to scope and undertake commissioning tasks of two new linear accelerators and associated ancillary equipment, Monaco and Eclipse treatment planning systems and ARIA in consultation with key stakeholders.

About the Directorate/Division/Department

The Ballarat Austin Radiation Oncology Centre (BAROC) is operated in partnership between Austin Health and Grampians Health, and is located within the Ballarat Regional Integrated Cancer Centre (BRICC). BAROC functions as a regional satellite of the Austin Health Department of Radiation Oncology, providing access to advanced radiation therapy services for patients across the Grampians region.

Within Austin Health, BAROC is aligned with the Integrated Cancer Services Division within the Operations Directorate. Clinical governance and oversight by Austin Health's Cancer Services Management ensures consistency in clinical practice standards, protocols, and quality assurance. This integrated model allows BAROC to deliver high-quality, multidisciplinary cancer care locally while maintaining strong links to Austin Health's metropolitan expertise and resources. BAROC currently houses 2 Varian linacs, a dedicated Siemens CT scanner, WoMED T105 SXRT, MIM Maestro and Monaco TPS, along with the ARIA OIS. In 2025 new True beam linacs are being installed and commissioned. An extensive suite of dosimetry equipment is onsite to support the service

Position responsibilities

1. Project Leadership and Coordination

- Lead the end-to-end commissioning project of the new linear accelerators, ensuring timely and safe clinical readiness.
- Coordinate with multidisciplinary teams, including radiation oncologists, radiation therapists, IT, vendors (e.g., Varian), and engineering.
- Develop and manage a detailed commissioning timeline and resource allocation plan.

2. LINAC Commissioning including Ancilliary systems

- Oversee and perform acceptance testing and commissioning of the new Varian TrueBeam LINACs, in accordance with local guidelines
- Configure and validate beam data
- Ensure integration of onboard imaging systems (kV, MV, CBCT), SGRT and gating/FFF capabilities.

3. Treatment Planning System (TPS) Commissioning

- Lead the commissioning and validation of treatment planning systems (Eclipse & Monaco), including:
 - Beam modelling for all designated clinical energies
 - Validation of dose calculation algorithms (e.g., Acuros, Monte Carlo)
 - Phantom-based end-to-end testing and patient-specific QA processes
- Coordinate with dosimetrists and planners to ensure readiness and training on the TPS.

4. ARIA Integration and Workflow Design

- Oversee the integration of the TPS and LINAC with ARIA Oncology Information System.
- Validate data integrity, record-and-verify functionality, and communication between systems (e.g., DICOM RT objects).

5. Development of Clinical Documentation and SOPs

- Draft and implement, with approvals, the standard operating procedures (SOPs) for commissioning, routine QA, treatment planning, and ARIA workflows.
- Develop clinical protocols for new treatment techniques supported by the LINAC and TPS (e.g., SBRT, VMAT, SRS).

6. Training and Knowledge Transfer

- Develop and deliver training programs for radiation therapists, physicists, and clinicians on the new technologies.

7. Quality Assurance and Safety

- Design and implement quality assurance (QA) procedures to monitor LINAC and TPS performance post-commissioning.
- Ensure compliance with local regulatory requirements (e.g., ARPANSA), radiation safety standards, and accreditation frameworks.

8. Clinical Commissioning and Go-Live Support

- Coordinate clinical rollout and ensure safe transition from test phase to patient treatment.
- Co-ordinate a Level 1b audit to be performed on both linear accelerators upon commissioning and prior to patient treatment.
- Undertake and document all elements required by the DHS and the Austin RSO to ensure the Austin management license can be amended to support initial commissioning work and clinical release.
- Provide on-site physics support during initial patient treatments to troubleshoot and refine workflows.

9. Documentation and Reporting

- Maintain accurate records of all commissioning activities, including beam data, QA reports, SOPs, and test results.
- Prepare and present commissioning reports for internal review, external audits, and regulatory compliance.

10. Integration and Alignment with Clinical Service

- Ensure alignment of commissioning tasks with BAU activities.



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- Collaborate with internal stakeholders to integrate procedures and work instructions within the existing clinical service framework

Selection criteria

ESSENTIAL

1. Demonstrated Expertise in Radiation Therapy Physics
 - 1.1. Extensive knowledge and experience in therapeutic medical physics, including external beam radiotherapy.
 - 1.2. Proven competency in commissioning and acceptance testing of linear accelerators, particularly Varian TrueBeam systems.
 - 1.3. Proficiency in configuring and validating advanced dose calculation algorithms, including Monte Carlo (Monaco) and Acuros (Eclipse).
 - 1.4. Proven ability to compare calculated dose distributions against measured data (e.g., point dose, film, 3D dosimetry) and apply robust QA methodologies for clinical acceptance.
2. Project Planning and Implementation Skills
 - 2.1. Demonstrated ability to independently lead complex technical projects, including equipment commissioning and integration into clinical workflows.
 - 2.2. Strong skills in developing project timelines, risk assessments, and resource allocation in alignment with departmental goals.
3. Standard Operating Procedures (SOPs) and Work Instruction Development
 - 3.1. Experience in drafting and implementing clinical SOPs and Work Instructions for radiation therapy services.
4. Training and Education
 - 4.1. Demonstrated capability in designing and delivering training programs for medical physicists, radiation therapists, and clinical staff.
5. Clinical Quality Assurance and Safety
 - 5.1. Demonstrated advanced understanding of QA methodologies and protocols related to LINAC operation, beam modelling, imaging systems, and treatment planning systems.
 - 5.2. Proven ability to ensure equipment and procedural compliance with relevant Australian and international standards (e.g., ARPANSA, IAEA, ICRU).
6. Leadership and Supervision
 - 6.1. Demonstrated leadership in a senior clinical physics role, including supervision and mentoring of staff.
 - 6.2. Ability to influence and collaborate effectively with internal stakeholders including clinicians, engineers, and radiation therapists.
7. Communication and Stakeholder Engagement
 - 7.1. Demonstrated high-level written and verbal communication skills, including experience preparing technical documentation, reports, and regulatory submissions (eg. Licensing requirements for state authority).
 - 7.2. Demonstrated strong interpersonal skills with a proven ability to work in a multidisciplinary team and manage change in a clinical environment.

8. DESIREABLE

- 8.1. Knowledge of relevant Victorian and national healthcare regulations and medical device compliance.
- 8.2. Active involvement in service development, innovation, or clinical research in radiation oncology.



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8.3. Evidence of ongoing professional development and engagement with the broader medical physics community (e.g., ACPSEM).

Professional qualifications and registration requirements

Recognized as a Qualified Medical Physics Specialist (Radiation Oncology) by the ACPSEM

Licensed with Department of Health and Human Services (DHHS) for the purposes of Therapeutic ionising radiation apparatus Quality assurance, commissioning, servicing and testing

Quality, safety and risk – all roles

All Austin Health employees are required to:

- Maintain a safe working environment for yourself, colleagues and members of the public by following organisational safety, quality and risk policies and guidelines.
- Escalate concerns regarding safety, quality and risk to the appropriate staff member, if unable to rectify yourself.
- Promote and participate in the evaluation and continuous improvement processes.
- Comply with the principles of person-centered care.
- Comply with requirements of National Safety and Quality Health Service Standards and other relevant regulatory requirements.

Other conditions – all roles

All Austin Health employees are required to:

- Adhere to Austin Health's core values: *our actions show we care, we bring our best, together we achieve, and we shape the future.*
- Comply with the Austin Health's Code of Conduct policy, as well as all other policies and procedures (as amended from time to time).
- Comply with all Austin Health mandatory training and continuing professional development requirements.
- Provide proof of immunity to nominated vaccine preventable diseases in accordance with Austin Health's immunisation screening policy.
- Work across multiple sites as per work requirements and/or directed by management.

General information

Cultural safety



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Austin Health is committed to cultural safety and health equity for Aboriginal and/or Torres Strait Islander People. We recognise cultural safety as the positive recognition and celebration of cultures. It is more than just the absence of racism or discrimination, and more than cultural awareness and cultural sensitivity. It empowers people and enables them to contribute and feel safe to be themselves.

Equal Opportunity Employer

We celebrate, value, and include people of all backgrounds, genders, identities, cultures, bodies, and abilities. We welcome and support applications from talented people identifying as Aboriginal and/or Torres Strait Islander, people with disability, neurodiverse people, LGBTQIA+ and people of all ages and cultures.

Austin Health is a child safe environment

We are committed to the safety and wellbeing of children and young people. We want children to be safe, happy and empowered. Austin Health has zero tolerance for any form of child abuse and commits to protect children. We take allegations of abuse and neglect seriously and will make every effort to mitigate and respond to risk in line with hospital policy and procedures.



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