

## ***Position Description: Medical Physicist***

Business area: Cancer Care Centre

FTE: As per Conditions of Employment

Reports to: Chief Physicist

### ***Position Objective:***

*To perform the day to day scientific tasks associated with radiotherapy in order to ensure:*

- *that equipment is commissioned for clinical use*
- *treatment equipment is calibrated and working within specification*
- *assistance is provided with, planning and checking individual patient treatment plans*
- *the service offered to patients is developed*

### ***Functional Relationships:***

| <b>Internal:</b>                                                                                                                                                                                                                                                   | <b>External:</b>                                                                                                                                                                                                                                              |
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| <ul style="list-style-type: none"> <li>• Radiation Therapists,</li> <li>• Radiation Oncologists</li> <li>• Clinical Scientists</li> <li>• Information Technology staff</li> <li>• Administration staff</li> <li>• Other staff in the Cancer Care Centre</li> </ul> | <ul style="list-style-type: none"> <li>• Office of Radiation Safety</li> <li>• Engineers</li> <li>• Technical support personnel</li> <li>• Manufacturers and suppliers of Radiation Oncology equipment</li> <li>• Other Radiation Oncology centres</li> </ul> |

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### *Key Areas of Accountability:*

| <b>Area of Accountability</b>                              | <b>Expected Results</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>                                             | <ul style="list-style-type: none"> <li>Competently utilises the basic operation of the patient management system.</li> <li>Provides scientific advice and training to staff and students associated with St. George's Cancer Care Centre.</li> <li>Liaises and coordinates work with the Cancer Care Centre IT Support team.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Treatment Planning</b>                                  | <ul style="list-style-type: none"> <li>Participates in the development of systems of work and protocols used in treatment planning.</li> <li>Prepares clinical treatment plans using the treatment planning system.</li> <li>Participates in the development of safe systems of checking to avoid treatment errors.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Dosimetry</b>                                           | <ul style="list-style-type: none"> <li>Performs commissioning measurements on all kinds of radiotherapy equipment in order to verify that the equipment is operationally configured and suitable for clinical use.</li> <li>Collects and analyses complex data from radiotherapy treatment equipment to enable accurate manual and computer calculation of the treatment settings.</li> <li>Performs highly accurate routine and non-routine dosimetry and geometric quality control of the radiotherapy equipment to ensure that it remains within clinically acceptable tolerances.</li> <li>Performs on-going calibration and quality control of clinical dosimeters in order to maintain the accuracy and traceability of the dosimetry chain.</li> <li>Advises radiation therapists on technical aspects of complex treatment planning and use of the treatment planning system. Provides advice on treatment methods and on individual patient treatments to other professionals involved in radiotherapy.</li> </ul> |
| <b>Research and Development</b>                            | <ul style="list-style-type: none"> <li>Keeps knowledge up to date knowledge on the latest technical and scientific developments in order to identify improvements to the service.</li> <li>Participates in R&amp;D projects agreed by the Chief Physicist.</li> <li>Promotes the work done at the Cancer Care Centre through scientific publication and through presentations at local, national and international meetings.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Interpersonal Relationships/Leadership and Teamwork</b> | <ul style="list-style-type: none"> <li>Promotes harmonious working relationships within the department and with clinicians and other staff members.</li> <li>Appreciates and respects the contribution of others within the team.</li> <li>Contributes positively to the goals of the team and the organisation.</li> <li>Communicates effectively, honestly and openly with other team members.</li> <li>Fosters co-operation across clinical and administrative groups.</li> <li>Models the Cancer Care Centre's values.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Quality Improvement</b>                                 | <ul style="list-style-type: none"> <li>Maintains operational and quality assurance procedures within the quality management system and proposes changes and improvements to procedures as necessary</li> <li>Participates actively in quality improvement activities by planning, implementing and evaluating improvements.</li> <li>Initiates, participates in design and evaluates audits and applies outcomes to improve service provision.</li> <li>Participates actively in Ministry of Health Certification and Accreditation process.</li> <li>Documents and reports incidents accurately in accordance with hospital policy.</li> <li>Participates actively in the development/review of policies and procedures.</li> </ul>                                                                                                                                                                                                                                                                                        |
| <b>Imaging</b>                                             | <ul style="list-style-type: none"> <li>Performs routine quality assurance of imaging systems in radiotherapy, including the CT scanner, EPID and CBCT systems.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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| Area of Accountability                                                          | Expected Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Treatment Planning                                                              | <ul style="list-style-type: none"> <li>Performs quality assurance on the treatment planning computers in accordance with departmental procedures based on internationally recognised guidelines</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Professional Development                                                        | <ul style="list-style-type: none"> <li>Maintains professional standards at all times by applying the standards of practice as laid down by the professional body and the organisation.</li> <li>Demonstrates and facilitates contemporary knowledge and skills.</li> <li>Understands and adheres to all legislative requirements and follows St George's Hospital policies and procedures.</li> <li>Participates in an annual performance appraisal and the setting of performance objectives aligned to the goals of the organization.</li> <li>Identifies own learning requirements/deficits and discusses development plan with Manager.</li> <li>Attends CPR updates and familiarises self with emergency equipment.</li> <li>Attends relevant study days and in-service education.</li> <li>Fosters an environment conducive to learning, enquiry and research.</li> <li>Participates in approved research programmes as requested.</li> </ul>                                                                                                                                                                                                                                                                      |
| Organisational Culture                                                          | <ul style="list-style-type: none"> <li>Fosters co-operation across the organisation.</li> <li>Is customer focused, understands and promotes the concept of internal and external customers (i.e. patients, colleagues and clinicians).</li> <li>Maintains confidentiality in respect to St George's operations, business, employees, clients and patients.</li> <li>Adheres to St George's policies and procedures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cultural understanding of the Treaty of Waitangi                                | <ul style="list-style-type: none"> <li>Understands and demonstrates an awareness of the obligations relating to the Treaty of Waitangi and the implications in practice.</li> <li>Promotes an awareness of ethnic and cultural differences, religious beliefs and obligations relating to the Treaty of Waitangi.</li> <li>Displays cultural sensitivity and a willingness to work positively with organisational strategies to improve outcomes for Maori.</li> <li>Respects diversity of cultural and religious beliefs amongst staff and patients.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Health &amp; Safety</b><br><br><b>Radiation Safety</b><br><br><b>General</b> | <ul style="list-style-type: none"> <li>Complies with current New Zealand radiation protection legislation and codes of practice.</li> <li>Brings to the attention of the Chief Physicist any safety issues.</li> <li>Ensures accidents and untoward incidents occurring in the department are reported.</li> <li>Takes reasonable care for personal health and safety.</li> <li>Takes reasonable care that own acts or omissions do not adversely affect the health and safety of other persons.</li> <li>Complies, as far as is reasonably able, with any reasonable instruction that is given to allow St George's to comply with the Health and Safety at work Act 2015</li> <li>Co-operates with any reasonable policy or procedure relating to health or safety at the workplace that has been notified to workers.</li> <li>Ensures compliance with hospital security requirements and is vigilant in all matters of security.</li> <li>Recognises safety hazards and initiates appropriate corrective actions.</li> <li>Attends fire and evacuation lectures and participates in drills as required.</li> <li>Participates in Health and Safety training as mandated by St George's from time to time.</li> </ul> |
| Organisational effectiveness                                                    | <ul style="list-style-type: none"> <li>Looks for ways and means to actively and effectively promote cost effectiveness.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| Area of Accountability | Expected Results                                                                                                                                                                                                                                      |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Duties           | <ul style="list-style-type: none"> <li>To undertake other duties as requested by the XXX from time to time</li> <li>Performs such duties in a timely, accurate manner and in accordance with St George's Hospital policies and procedures.</li> </ul> |

### *Qualifications, Experience and Personal Qualities*

|                        | Essential                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Desirable                                                                                                                      |
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| Qualifications         | <ul style="list-style-type: none"> <li>A postgraduate degree (MSc or higher) in a relevant subject.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                |
| Experience & Knowledge | <ul style="list-style-type: none"> <li>At least 2 years post graduate experience in Radiotherapy Physics and be able to demonstrate practical experience and a good knowledge of radiotherapy physics, have the ability to perform scientific measurements accurately and have good computing skills.</li> <li>Hold or be eligible to obtain a license to use Ionising Radiation from the Office of Radiation Safety.</li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Registration of a recognized body such as ACPSEM</li> <li>Experience with MR</li> </ul> |
| Personal Attributes    | <ul style="list-style-type: none"> <li>Good organisational skills</li> <li>Effective interpersonal skills and be able to work as part of a small team.</li> <li>Highly motivated and be able to work without supervision.</li> <li>Able to work effectively and efficiently under occasional periods of pressure.</li> <li>Good oral and written communication skills.</li> <li>Prepared to work flexible hours.</li> <li>Innovative and have the ability to do research and development.</li> <li>Appreciate the need for sensitivity when dealing with patients and their relatives.</li> </ul> |                                                                                                                                |

*Agreed by:*

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Employee)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Chief Physicist