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|  | **All District Health Boards** | |
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| **SPECIALIST MEDICAL AND SURGICAL SERVICES -** RADIATION ONCOLOGY SERVICESTIER TWO SERVICE SPECIFICATiON | | |
| Status: Approved to be used for mandatory nationwide minimum description of services to be provided. | | MANDATORY 🗹 |
| Review History | | Date |
| First published on NSFL | | **2001** |
| Amendments: edited, clarified Service definition to include brachytherapy and megavoltage orthovoltage, updated web links to wait times, inserted Service Linkage table, updated new Purchase Unit Codes developed by Radiation Oncology PUC working party. Removed staffing levels as these will be specified in future in the National Plan for Radiation Oncology Services. | | **November 2011** |
| Amendments: Included new reporting requirements. Purchase Units amended to align with current Data Dictionary. Links added and/or updated including: Radiation Oncology National Linear Accelerator and Workforce Plan. National Radiation Oncology Plan Tripartite Radiation Oncology Practice Standards. Edited. | | **February 2018** |
| Amendments: Added new Purchase Unit Codes to reflect updated framework. Some codes will be retired 30 June 2023. Details of new and retired Purchase Unit Codes can be found in PUDD Changes Sheet V27.1 | | **July 2022** |
| Consideration for next service specification review | | **within five years** |

**Note**: Contact the Service Specification Programme Manager, Service Commissioning, Ministry of Health to discuss the process and guidance available in developing new or updating and revising existing service specifications. Web site address Nationwide Service Framework Library: www.nsfl.health.govt.nz/

**SPECIALIST MEDICAL AND SURGICAL SERVICES -**

**RADIATION ONCOLOGY SERVICES**

**TIER TWO SERVICE SPECIFICATION**

**M50001, M50007, M50008, M50016,** **M50022, M50023, M50024, M50025, M00010, M00011, M50027, M50028, M50029, M50030, M50031, M50032**

This tier two service specification for Radiation Oncology Services (the Service) must be used in conjunction with the tier one Specialist Medical and Surgical Services service specification that contains common content applicable to service delivery for all tiers of service specifications below it. Refer to the tier one service specification headings for generic details on:

* Service Objectives, including Māori health objectives
* Service Users
* Access
* General Service Components
* Service Linkages
* Exclusions
* Quality Requirements.

This tier two service specification is also linked to the Services for Children and Young People service specifications and related relevant service specifications such as:

* Tier two Paediatric Oncology and Haematology Services
* Tier two Medical Oncology Services
* Tier three Coordination of Adolescent and Young Adult Service.

**Background**

The Radiation Oncology National Linear Accelerator and Workforce Plan[[1]](#footnote-1) informs a nationally coordinated approach to radiation oncology service and capacity development, within the context of the National Radiation Oncology Plan[[2]](#footnote-2).

There are four regional cancer networks in New Zealand who work across organisational boundaries to promote a collaborative approach to service planning and delivery.

* [Northern Cancer Network - Auckland, Waitemata, Counties Manukau, Northland](http://www.moh.govt.nz/moh.nsf/indexmh/cancercontrol-regionalnetworks-northern) DHBs
* [Midland Cancer Network - Waikato, Bay of Plenty, Lakes](http://www.moh.govt.nz/moh.nsf/indexmh/cancercontrol-regionalnetworks-midland) DHBs, Tairawhiti
* [Central Cancer Network - Taranaki, Whanganui, MidCentral, Hawke’s Bay, Wairarapa, Hutt Valley, Capital & Coast](http://www.moh.govt.nz/moh.nsf/indexmh/cancercontrol-regionalnetworks-central) DHBs
* Southern Cancer Network – Nelson/Marlborough, Canterbury, West Coast, South Canterbury, Southern DHBs.

The regional cancer networks facilitate and coordinate services across health providers at all levels and bring various providers and consumer organisations together to ensure co-operation and integration of services, where appropriate.

# 1. Service Definition

The Service provides radiation treatment mainly, but not exclusively, for patients with malignant tumours. Radiation therapy is the use of ionising radiation to kill cancer cells and shrink tumours.

Radiation services include:

* external beam radiation treatment in which high-energy x-ray beams generated by a machine are directed at the tumour from outside the body using megavoltage or orthovoltage (kilovoltage) machines and;
* brachytherapy may be either temporary or permanent. It involves placing a [radioactive material](http://www.radiologyinfo.org/en/glossary/glossary1.cfm?gid=597) directly inside or next to the tumor using sealed and unsealed radiation isotope sources.

Temporary brachytherapy can be administered at a [low-dose rate](http://www.radiologyinfo.org/en/glossary/glossary1.cfm?gid=595) (LDR) or [high-dose rate](http://www.radiologyinfo.org/en/glossary/glossary1.cfm?gid=593) (HDR) for a specific amount of time and then withdrawn.

[Permanent brachytherapy](http://www.radiologyinfo.org/en/glossary/glossary1.cfm?gid=596)[[3]](#footnote-3) involves placing radioactive seeds or pellets permanently where the radioactivity level of the implants eventually diminishes to nothing, with no lasting effect on the patient.

The care provided to each Service User is complex and includes a significant number of planned interventions across a number of treatment modalities. The providers should be guided by the National Radiation Oncology Plan recommendations to improve delivery of radiation oncology services.

Surgery, radiation treatment and chemotherapy are the main methods of treatment of cancer. In New Zealand, regional oncology centres provide funded medical oncology, radiation oncology and haematology services. Although radiation treatment is only offered at these centres, chemotherapy and surgical services are offered in most hospitals. Other supportive care and ancillary treatments may be provided during treatment.

# 2. Service Objectives

The Service objectives are to provide:

* radical treatment for cure or long-term control of cancer to improve cancer free survival rates
* palliative treatment for control of symptoms caused by cancer to improve the Service users’ quality of life
* treatments that are delivered by methods to ensure maximum safety and minimise the Service users’ risk of complications.

# 3. Service Users

The Service Users are eligible people with conditions that require advice on the management and / or radiation treatment for their condition.

# 4. Access

**4.1 Entry Criteria**

All Eligible[[4]](#footnote-4) people whose referral meets the specified referral criteria to a Radiation Oncologist. Access to the Service is by referral to the Service from another medical practitioner or Nurse Practitioner.

* 1. **Exit Criteria**

The Service User exits the Service when they:

* are discharged from the Service back to their primary health care practitioner if they have completed their treatment or,
* or they have declined, or are declined treatment.
* die, or
* the Service User leaves the area and is transferred to another service.

### **4.3 Waiting Times for Treatment**

The Services will ensure that Service Users are treated within the agreed national timeframes for cancer treatment. Refer to the Ministry of Health’s Faster Cancer Treatment Health Targets website: <https://www.health.govt.nz/new-zealand-health-system/health-targets/about-health-targets/health-targets-faster-cancer-treatment>

# 5. Service Components

* 1. **General**

Components of a comprehensive radiation oncology service include:

* specialist assessment and reassessment of Service Users referred with new problems that is based on evidence and adequate informed consent
* specialist follow up and follow up guidance for other specialists or referring clinicians
* Service User education and counselling regarding treatment and self management during therapy
* multidisciplinary team meetings that play a central role in managing patients with cancer
* treatment planning
* supervision and review of the delivery of radiation therapy
* review of service users on radiation treatment
* management of treatment complications
* co-ordination and provision of supportive care and other treatments while Service User is having radiation treatment
* education of medical and nursing staff
* quality assurance activities – review and audit of treatment and procedures.
  1. **Settings**

A consideration in determining the settings for the Service should include (but not be confined to) issues such as cultural appropriateness, accessibility and most effective and efficient use of resources. Services may be provided through in-patient, outreach (visiting) clinics, outpatient settings or other clinically appropriate facility.

The Services will be provided as close as possible to the Service User’s area of domicile that meet the clinical needs of the Service User.

**5.5 Key Inputs**

Appropriately trained, qualified and experienced clinical and support health care professionals, such as:

* radiation oncologists
* registrars
* oncology nurses
* radiation therapists
* radiation oncology medical physicists.

Multidisciplinary care involves input and collaboration in a wide variety of areas that include both specialist and shared care services clinical and support staff: The depth of expertise and effective co-ordination of this team is essential to ensure high-quality outcomes.

**5.6 Support Services**

The following support services are required to be provided as an integral part of the Service:

* pathology and laboratory services
* pharmaceutical services
* diagnostic imaging services
* psychosocial support services
* cancer nurse coordination services
* interpreting services including NZ Sign Language for the Deaf
* chaplaincy services.

# 6. Service Linkages

The Service must be well integrated with other general and specialist services and have effective consultation, liaison and referral between services and sub-specialities. Generic service linkages are described in tier one Specialist Medical Surgical Services.

Effective service linkages will be maintained with:

| **Service Provider** | **Nature of Linkage** | **Accountabilities** |
| --- | --- | --- |
| General Practitioners, Nurse Practitioners, or other primary health carers | Referral and consultation | Refer individuals for assessment and management according to national referral guidelines. |
| Other Specialists in District Health Boards and Private Services. | Referral and liaison | Obtain expert clinical consultation and referral services that support continuity of care |
| Community district nurses and district nursing | Referral and liaison | Assessment, treatment and intervention that supports seamless service delivery and continuity of care |
| Community organisations and services | Facilitate Service access and participation | Provision of information and services that supports seamless service delivery and continuity of care |
| Palliative Care and Hospice Services | Liaison and consultation | Obtain expert clinical consultation and referral services that support continuity of care. |
| National Screening programmes | Referral and consultation | Access to assessment, treatment and intervention that supports seamless service delivery and continuity of care. |
| Disability Support Services | Referral and liaison | Liaison with assessment and intervention services that support seamless service delivery and continuity of care. |
| Social services, home help | Referral and consultation | Assessment and intervention that supports seamless service delivery and continuity of care. |
| Māori service providers | Facilitate Service access and participation | Liaison as appropriate with local iwi and communities to ensure culturally appropriateness and accessibility to services. |
| Pacific Peoples service providers | Facilitate Service access and participation | Liaison as appropriate with local communities to ensure culturally appropriateness and accessibility to services. |
| Non-Government Organisations and Community Health services | Facilitate Service access and participation | Liaison as appropriate that support seamless service delivery and continuity of care. |
| Providers of support services – including transport and accommodation services | Facilitate Service access and participation | Liaison as appropriate with providers of support services |

# 7. Quality Requirements

The Service must comply with the Provider Quality Standards described in the Operational Policy Framework[[5]](#footnote-5) and as applicable, contracts or service level agreements.

The National Radiation Oncology Plan 2017 to 2021 includes clinical planning. It is guided by the New Zealand Cancer Plan’s priorities and expectations, Cancer Health Information Strategy and the New Zealand Health Strategy.

National Tumour Standards[[6]](#footnote-6) are used by the DHBs as the benchmarks for high quality care for different types of cancer and help ensure patients receive timely, good quality care along the cancer pathway.

Guidance for Improving Supportive Care for Adults with Cancer in New Zealand[[7]](#footnote-7) is a guidance document used to improve the quality of life for people affected by cancer by improving access to and the quality of supportive care.

Actions in this Oncology Plan aim to address variation in access to radiation oncology services and treatment throughout DHBs. This will ensure that access to radiation oncology services is fair for all New Zealanders, and that radiation oncology services remain safe, effective and sustainable.

In addition the Service should comply with the Tripartite Radiation Oncology Practice Standards (NZ 2013)[[8]](#footnote-8).

# 8. Purchase Unit Codes and Reporting Requirements

**8.1** Purchase Unit (PU) codes are defined in the DHB and Ministry’s Nationwide Service Framework Data Dictionary. The Service must comply with the reporting requirements of national data collections where available.

**8.2** New radiotherapy framework establishes four new planning purchase units and two new treatment purchase units based on complexity of regimes. These codes will replace the current radiotherapy codes M50008, M50025, M50024, M50016. From 1 July 2022 activity can be counted under the new codes, however for 22/23 the old codes remain in place and activity must still be reported using the existing codes. Further advice on costing of the new codes will be provided to the sector.

The following PU codes apply to this Service:

| **PU Code** | PU Description | **PU Definition** | **PU Unit of Measure** |
| --- | --- | --- | --- |
| M50001 | | Oncology - Inpatient Services (DRGs) | DRG WIESNZ Discharge. Additional Information is found in the NZ Casemix Framework for Publicly Funded Hospitals which gets updated every year. This excludes the costs of Pharmaceutical Cancer Treatment (PCT) | Cost Weighted Discharge |
| M50007 | | Oncology - Stereotactic radiosurgery | Ablation of intracranial lesions using large single doses of radiation. | Completed treatment |
| M50008 | | Oncology - Stereotactic radiotherapy | Delivery of a fractionated course of radiation using stereotactic techniques and precision. | Completed treatment |
| M50016 | | HDR Brachytherapy | An attendance to plan for or to receive prescribed Brachytherapy treatment(s). The specialist may or may not be in attendance. Includes all planning and simulation, and radioactive isotope implants or treatments. | Brachytherapy volume |
| M50022 | | Radiation Oncology 1st Attendance | First attendance to a radiation oncologist or medical officer at registrar level or above or nurse practitioner for specialist assessment. Excludes medical oncology. | Attendance |
| M50023 | | Radiation Oncology Subsequent Attendance | Follow-up attendances to a radiation oncologist or medical officer at registrar level or above or nurse practitioner. Excludes medical oncology and radiotherapy | Attendance |
| M50024 | | Oncology Radiotherapy – External Beam (Orthovoltage) | An attendance to plan for or to receive prescribed radiotherapy treatment(s) by external beam (orthovoltage). The specialist may or may not be in attendance. Includes all planning and simulation and radiation treatment | Radiotherapy volume |
| M50025 | | Oncology Radiotherapy – External Beam Megavoltage (linac) | An attendance to plan for or to receive prescribed radiotherapy treatment(s) by external beam megavoltage (linac). The specialist may or may not be in attendance. Includes all planning and simulation, and radiation treatment | Radiotherapy volume |
| M00010 | | Medical non contact First Specialist Assessment - Any health specialty | A review is undertaken by a Registered Medical Practitioner of Registrar level or above, or a Registered Nurse Practitioner, of patient records and any diagnostic test results from Primary to Secondary or Secondary to Tertiary. GP referral can come from tertiary and secondary referrals. The original referral should only be generated after a face to face contact by the referrer. A written plan of care is developed for the patient and provision of that plan and other necessary advice is sent to the referring clinician and the patient. The non contact FSA does not include the triaging of referral letters. The patient should not be present during the assessment. | Written plan of care |
| M00011 | | Medical non contact Follow Up - Any health specialty | A review is undertaken by a Registered Medical Practitioner of Registrar level or above, or a Registered Nurse Practitioner, of patient records and any relevant diagnostic test results. The patient is not present during this follow up that should only be undertaken after a face to face contact by the same service. A written plan of care is developed for the patient and that plan and other necessary advice is sent to patient and if applicable to referrer. Diagnostics are only to be included if ordered by the DHB providing the non-contact follow up. | Written plan of care |
| M50027 | | Oncology- Radiotherapy, planning - Level 1 | Planning activity for radiotherapy treatment: Simple Fields -Standard external beam (SEB), <30 gy, Palliative -Superficial / Orthovoltage (Kv) The specialist/physicist may or may not be in attendance. Includes all planning and associated imaging. | Radiotherapy planning |
| M50028 | | Oncology-Radiotherapy, planning - Level 2 | Planning activity for radiotherapy treatment-: 3D Conformal Radiation Therapy.  -Standard external beam (SEB), >=30 gy, Palliative -Standard external beam (SEB) all Curative courses The specialist / physicist may or may not be in attendance. Includes all planning, and associated imaging. | Radiotherapy planning |
| M50029 | | Oncology-Radiotherapy, planning - Level 3 | Planning activity for radiotherapy treatment - Intensity Modulated Radiation Therapy / Volumetric Modulated Arc Therapy / Stereotactic Therapy.  -IMRT, VMAT, ARC (Arc therapy), FFF (Flattening Filter Free), GRT (Gated RT) -SRT (Stereotactic RT)  The specialist/physicist may or may not be in attendance. Includes all planning and associated imaging. Excludes planning activity associated with M50007 Oncology - Stereotactic radiosurgery | Radiotherapy planning |
| M50030 | | Oncology-Radiotherapy, planning - Level 4 | Planning activity for radiotherapy treatment - Brachytherapy, TBI, TSET.  -Brachytherapy,  -TBI (Total body irradiation) -TSET (Total skin electron therapy) The specialist / physicist may or may not be in attendance. Includes all planning and associated imaging.  Excludes planning activity associated with M50007 Oncology - Stereotactic radiosurgery | Radiotherapy planning |
| M50031 | | Oncology Radiotherapy – Fractions | Fraction delivered for radiation therapy treatment. A patient may have more than one site treated on the same day if multiple courses have been planned. Excludes brachytherapy (M50032) any attendances associated with the planning of radiation therapy including imaging, which forms part of the radiotherapy-planning purchase unit codes (M50027, M50028, M50029 or M50030). | Radiotherapy treatment volume |
| M50032 | | Oncology Brachytherapy – Fractions | Fraction delivered for brachytherapy treatment. A patient may have more than one site treated on the same day if multiple courses have been planned.  Excludes any attendances associated with the planning of radiation therapy including imaging, which forms part of the radiotherapy-planning purchase unit codes (M50027, M50028, M50029 or M50030). | Radiotherapy treatment volume |

|  |  |
| --- | --- |
| **Unit of Measure** | **Unit of Measure Definition** |
| Attendance | Number of attendances to a clinic/department/acute assessment unit or domiciliary. |
| Brachytherapy volume | The volume count of brachytherapy volumes in one day is up to a maximum of five. The specialist may or may not be in attendance. Includes all planning and simulation, and radioactive isotope implants or treatments |
| Cost Weighted Discharge | A numerical measure representing the relative cost of treating a patient through to discharge |
| Radiotherapy volume | The volume count of radiotherapy events in one day is up to a maximum of 10 if there are multiple cancer sites to be treated. The specialist may or may not be in attendance. Includes all planning and simulation, and radiation treatment |
| Written plan of care | Written plan of care provided by the specialist to the referring GP |
| Radiation treatment volume | Volume count of radiotherapy treatment sites, or fractions delivered in one day. If multiple cancer sites are treated in one day, treatment to each site/fraction is counted. Maximum volume of 10 per day. Excludes all planning and associated imaging. |
| Radiotherapy planning | Volume count of completed radiotherapy planning for treatment for each cancer site undertaken. The set of planning for each cancer site is identified by the Course ID. Includes all clinical and technical input, including imaging and the patient’s attendances for a set of planning events for treatment of a cancer site. Maximum volume of 10 per patient if there are multiple cancer site plans generated for treatment at the same visit. |

# 8.2 Reporting Requirements

The Service Providers will submit quarterly data returns to the Ministry of Health in line with the Radiation Oncology collection technical requirements as agreed with the Radiation Oncology Work Group.

The Service Providers must contribute data to the Ministry’s radiation oncology collection. Using the online radiation Oncology data application is designed to use the information to inform planning and guide the delivery of high quality care.

1. www.health.govt.nz/publication/radiation-oncology-national-linear-accelerator-and-workforce-plan [↑](#footnote-ref-1)
2. www.health.govt.nz/publication/national-radiation-oncology-plan-2017-2021 [↑](#footnote-ref-2)
3. also called seed implantation. [↑](#footnote-ref-3)
4. Eligibility criteria: - Not all people who are referred or present to the Service are eligible for publicly funded services. Refer to website: [www.health.govt.nz/new-zealand-health-system/eligibility-publicly-funded-health-services](file:///C:\Users\JCRAVEN\AppData\Local\Temp\notes339E40\www.health.govt.nz\new-zealand-health-system\eligibility-publicly-funded-health-services) for more eligibility information [↑](#footnote-ref-4)
5. www.nsfl.health.govt.nz/accountability/operational-policy-framework-0 [↑](#footnote-ref-5)
6. www.health.govt.nz/our-work/diseases-and-conditions/cancer-programme/faster-cancer-treatment-programme/national-tumour-standards [↑](#footnote-ref-6)
7. www.health.govt.nz/publication/guidance-improving-supportive-care-adults-cancer-new-zealand [↑](#footnote-ref-7)
8. www.ranzcr.com/college/document-library/nz-radiation-oncology-practice-standards [↑](#footnote-ref-8)