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|  | **All District Health Boards** |
| SPECIALIST MEDICAL AND SURGICAL SERVICES - SOLID ORGAN TRANSPLANT SERVICESService Specification**Tier two** |
| Status:It is compulsory to use this nationwide service specification when purchasing this service. | MANDATORY  |
| **Review History** | **Date** |
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| Amendments: edited for consistency with other service specifications, updated terminology, references, links to other services, and reporting requirements. | **9 April 2014** |
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| Consideration for next Service Specification Review | **within five years** |

Note: Contact the Service Specification Programme Manager, Ministry of Health nsfl@health.govt.nz for queries about this service specification.

Nationwide Service Framework Library website http://www.nsfl.health.govt.nz

SPECIALIST MEDICAL AND SURGICAL SERVICES-

SOLID ORGAN TRANSPLANT SERVICES

**TIER TWO SERVICE SPECIFICATION**

**ADJ101, T0102 to T0113, M6001**

The tier one Specialist Medical and Surgical Services specification contains generic principles and content common to all tiers of linked service specifications below it. The tier two service specification for Solid Organ Transplant Services (the Service) must be used in conjunction with the tier one Specialist Medical and Surgical Services service specification and where age applicable, the tier one Services for Children and Young People service specification.

In addition, refer to the relevant linked tier two service specifications such as:

* General Surgery
* Vascular Surgery
* Renal Services
* Paediatric and Congenital Cardiac Services
* Organ Donation, Coordination, Education and Information Services.

See also Increasing Deceased Organ Donation and Transplantation: A National Strategy 2017[[1]](#footnote-1), that sets out actions under six priority areas to increase deceased organ donation in New Zealand.

1. Service Definition

This Service is for the care required from a specialist hospital service to treat eligible people undergoing a solid organ transplant procedure (Service Users). The Service provides a comprehensive assessment, pre-transplant care and/or advice, solid organ transplant surgery, rehabilitation and permanent follow-up service.

Permanent follow-up services are provided in collaboration with primary health care providers. Service Users are normally returned to their referring physician/hospital for ongoing care after an agreed period of post-transplant care.

The Service must use eligibility criteria for any given organ transplant, and organ allocation criteria that determine which of the Service Users will be assigned a particular organ when it becomes available. These criteria are dependent on agreed guidelines that are published under the auspices of the Transplantation Society of Australia and New Zealand (TSANZ).

The Service may be part of a regional and national organ transplant service listed below:

* Heart transplant
* Lung transplant
* Heart-Lung transplant
* Liver transplant - adults and children
* Pancreas transplant
* Paired Kidney Exchange
* Simultaneous Pancreas/ Kidney transplant
* Renal transplant –deceased donor
* Renal transplant – live donor.
1. Exclusions

People eligible for transplant treatment funded by Accident Compensation Corporation are excluded from this specification.

Transplant co-ordination and organ retrieval services and other education and support services are funded and provided under the tier two Organ Donation, Coordination, Education and Information Services service specification.

1. **Service Objectives**

**3.1 General**

The key objectives of the Service are:

* to improve the chances of a Service User’s survival and quality of life
* to achieve successful co-ordination and integration of medical/nursing/allied health personnel working within multidisciplinary teams working in a highly integrated manner
* to comprehensively prepare Service Users for transplantation including diabetes control, coronary artery revascularisation and/or carotid artery disobliteration.

**3.2 Māori Health**

Refer to tier one Specialist Medical and Surgical Service specification.

The Service must recognise the cultural values and beliefs that influence the effectiveness for services for Māori people and must consult and include Māori in service design and delivery.

**4. Service Users**

Service Users are eligible people according to the Service’s entry criteria see 5.1 below.

**5. Access**

**5.1. Entry Criteria**

Each solid organ transplant programme has defined selection criteria that must be used for patients referred for consideration of transplantation that determine which of the Service Users will be assigned a particular organ when it becomes available. The links to the eligibility criteria for all organ transplant recipients in Australia and NZ (published by the Transplantation Society of Australia and NZ (TSANZ)) and The New Zealand Kidney Allocation Scheme are provided in Appendix One.

Not all patients who are referred or present to the Service are eligible for publicly funded services.

**5.2 Exit Criteria**

* De-listing for:
* disease progression/development of a contraindication to transplantation
* disease regression
* transplantation
* no longer meeting listing criteria including utilitarian concepts given limited donor organ availability.
* Completion of the follow up interval by the Service, or emigration, or death.

**5.3 Distance**

Ideally, Service Users awaiting transplantation should be able to get to the transplant centre within 4-6 hours of being notified that an organ is available.

In the post-transplant period, intensive follow up at the transplant centre means that some Service Users are required to live within a one hour driving distance of that centre. Many Service Users need accommodation close to the transplant centre for up to 90 days post-transplant.

**5.4 Time**

While many Service Users require, or could benefit from urgent or semi-urgent transplantation, the rate-limiting step in transplant programmes is usually the availability of a suitable deceased or live donor organ. There is no stipulated maximum waiting time for any solid organ transplant procedure.

**5.5 Organs**

Transplanted organs are derived from deceased donors for heart, lung, liver, pancreas and kidneys or living donors for kidneys and liver. The restricted number of organ donors is the rate-limiting step for solid organ transplant service provision in New Zealand. Services are provided at the level necessary to ensure both optimal access and outcomes for the Service User. To balance these needs using a limited resource (organ availability) international best-practice protocols are used, refer to the Appendix One.

**6 Service Components**

**6.1 Processes**

The Service will provide appropriate written information about the Service to potential Service Users and all referring agencies. The Service will also maintain formal (two-way) referral processes including documenting outcome of the referral.

The Service may include:

* consultation with/without simple investigation and/or opinion
* consultation with complex investigation and/or opinion/treatment
* referral to another specialty for an opinion, opinion/management, or opinion/shared management
* elective, acute or emergency surgery
* integrated transplant processes including:

- pre-operative assessment and diagnostic intervention

- surgical intervention for diagnosis / treatment

- post operative follow up

- outpatient follow up

* continuation of care in the community after discharge
* support from clinical support services.

**6.2 Settings and Facilities**

Assessments are carried out in outpatient settings whenever possible.

Transplantation is carried out in a hospital (operating room, intensive care, and specialist ward).

Follow-up is carried out mostly in the outpatient clinic setting.

**6.3 Service Levels**

The management of Service Users involves a complex sequence of relationships and events. The level of intervention varies according to the Service User’s clinical condition, recognised clinical guidelines, the capacity of the District Health Board, qualification/training of the medical staff, and the level of clinical support available.

**6.4 Key Inputs**

The following is an indicative list of key inputs to be included in the Service:

***For in patient Diagnosis Related Groups (DRG) services:***

* pre-admission clinic
* pretransplant assessment clinics (transplant coordinator, medical and surgical)
* emergency and elective access to operating rooms
* transport of organs/patients
* deceased or live-donor derived organs
* specialist services including: cardiology, respiratory, hepatology, nephrology, haematology, infection control, intensive care, anaestheology, immunology, psychiatry, urology, neurology, and gastroenterology
* clinical support services eg, diagnostic imaging services, pathology, laboratory, allied health
* consumable supplies eg, New Zealand Blood Service, pharmaceuticals, and prostheses
* commercial support services eg, accommodation and meals.

***For outpatient non-DRG services:***

* treatment, therapy, advice, diagnostic or investigatory procedures
* other health professionals including additional medical practitioners
* pretransplant patient education sessions
* tests requested during an attendance but carried out at another place and time
* pharmaceuticals used or consumed during assessment or treatment
* virtual health/telehealth[[2]](#footnote-2)/telephone consultations
* staff travel
* supply or loan of essential equipment.

***Boarders:*** a well person accompanying a patient in hospital will be accommodated by the Service as directed by the patient’s medical consultant or the senior nurse on duty. The costs associated with the boarder stay (one day’s stay or more) will be an input to the particular medical or surgical service. No charge will be made to the boarder apart from the cost of meals.

1. Service Linkages

This section specifies services that are linked to the Service but are not purchased as a direct, integral component of the Service.

| **Service Provider** | **Nature of Linkage** | **Accountabilities** |
| --- | --- | --- |
| General Practitioner (GP) and primary health carers | Referral and consultation | Refer patients as per referral protocols  |
| Other Specialist Services and Allied Health | Referral and consultation | Refer for clinical assessment, treatment and intervention. |
| The Australia and New Zealand Dialysis and Transplant Registry (ANZDATA) | Facilitate Service planning  | Monitor outcomes in relation to Australasian register through the provision of accurate data. |
| Social services, counselling, home help, community services Specialist community nursing services | Referral and consultation | Assessment, treatment and intervention that supports seamless service delivery and continuity of care. |
| Māori iwi and Māori communities | Facilitate Service access and participation | Liaise with local iwi and communities to ensure culturally appropriateness and accessibility to services. |
| Pacific Peoples and new migrant Community Health Workers | Facilitate Service access and participation | Liaise with local communities, community leaders as appropriate to ensure culturally appropriateness and accessibility to services. |
| Australian and New Zealand Intensive Care Society -Committee on Death and Organ Donation  | Provides advice and liaison | Provide advice on strategies to improve organ and tissue donation, and on the educational needs of intensive care doctors with regard to brain death and organ and tissue donation. Liaising with other organisations, groups, and Government on issues related to organ and tissue donation. |
| Organ Donation New Zealand | Liaison. Facilitate Service access and participation | Coordination of all aspects related to solid organ transplantations between and within DHB of donation and DHB of transplantation to achieve a continuum of care and ensure equitable access. Liaison to ensure that the person donating and the family are treated with respect and dignity throughout the donation process. |
| New Zealand Blood Service | Facilitates service access. Provides services  | Manages the wait list for heart, lung, pancreas and kidneys, provides cross matching tests etc |
| New Zealand Liver Transplant Unit  | Facilitates service access | Manages liver transplant wait list. |

1. Quality Requirements

The Service must comply with the Provider Quality Standards described in the Operational Policy Framework [[3]](#footnote-3) or, as applicable, Crown Funding Agreement Variations, contracts or service level agreements.

The Services will use the agreed guidelines that are published to members of the Transplantation Society of Australia and New Zealand.

The Australian Transplant Authority undertakes audits of individual transplant units within New Zealand, especially when organs are shared between countries (livers and, to a lesser extent, kidneys, hearts and lungs).

1. Purchase Units and Reporting Requirements

**9.1** Purchase Unit (PU) codes are defined in the DHB and Ministry’s Nationwide Service Framework Purchase Unit Data Dictionary. The following specific purchase unit codes apply to this Service.

Heart, lung and liver transplantation codes.

| **PU Code** | **PU Description** | **PU Definition** | **Unit of Measure** |
| --- | --- | --- | --- |
| T0102 | Specialised Heart/Lung Transplant Services - Heart transplant assessment | Assessment against agreed criteria for access for cardiac transplant.  | Assessment  |
| T0103 | Specialised Heart/Lung Transplant Services - Heart transplant | Transplantation as an accepted treatment for selected patients with end-stage cardiac failure.  | Procedure  |
| T0105 | Specialised Heart/Lung Transplant Services - Lung transplant assessment | Assessment against agreed criteria for access for lung transplant.  | Assessment |
| T0106 | Specialised Heart/Lung Transplant Services - Lung transplant | Transplantation as an accepted treatment- single lung transplantation / bilateral-sequential lung transplantation.  | Procedure |
| T0109 | Deceased Donor Collection | Collection of Deceased Donor for harvesting organs for transplants  | Service |
| T0110 | Liver Transplant - Assessments for Children | Assessment against agreed criteria for access for liver transplantation  | Assessment |
| T0111 | Liver Transplant Inpatient services for adults | Transplantation as an accepted treatment for selected patients with liver failure  | Procedure |
| T0112 | Liver Transplant – Adult assessments | Assessment against agreed criteria for access for Liver transplantation  | Assessment |
| T0113 | Liver Transplant Inpatient services for children | Transplantation as an accepted treatment for selected patients with liver failure  | Procedure |

Renal Transplant codes

| **PU Code** | **PU Description** | **PU Definition** | **Unit of Measure** |
| --- | --- | --- | --- |
| ADJ101 | Severity/Complexity Adjuster - Medical/Surgical | Severity and Complexity pricing adjuster for National Medical, Surgical and Neonatal Purchase units.  | Adjuster |
| M60001 | Renal Medicine - Inpatient Services (DRGs) | DRG WIESNZ Discharge. Additional Information is found in the NZ Casemix Framework for Publicly Funded Hospitals which gets updated every year. | Cost Weighted Discharge |
| T0109 | Deceased Donor Collection | Collection of Deceased Donor for harvesting organs for transplants  | Service |

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| **Unit of Measure** | **Unit of Measure Definition** |
| Adjuster | Price adjustment for cost elements not adequately recognised within national purchase unit base prices. |
| Assessment | Number of assessments. Initial assessments and reassessments should be counted separately. |
| Cost Weighted Discharge | A numerical measure representing the relative cost of treating a patient through to discharge |
| Procedure | The number of individual operative/diagnostic/assessment procedures in the period (period is annual 1st July - 30th June). |
| Service | Service purchased in a block arrangement uniquely agreed between the parties to the agreement |

**9.2 Reporting Requirements**

The Service must comply with the requirements of the Ministry’s national data collections.

DHBs must accurately report activity to the Ministry’s National Collections as outlined in the Operational Policy Framework[[4]](#footnote-4), Monitoring and Reporting chapter, this includes but is not limited to National Minimum Data Set (NMDS), National Non-Admitted Patient Collection, (NNPAC), National Booking Reporting System (NBRS) and National Patient Flow (NPF).

Organisations that provide any services purchased by DHBs directly will also supply the Ministry with data required for inclusion in the National Collections (particularly the NMDS, NPF, NBRS and NNPAC). Organisations will notify the Ministry (operations@health.govt.nz) of any changes to their data definitions, standards or computer systems that may or will affect the supply of the above data.

All transplant data will be reported as specified to The Australia and New Zealand Dialysis and Transplant Registry (ANZDATA).

**Appendix One – Organ Allocation Protocols**

**Organ Transplantation from Diseased Donors: Consensus Statement on Eligibility Criteria and Allocation Protocols** is published on the Transplantation Society of Australia and NZ (TSANZ) website.It includesheart, kidney, liver, lung and pancreas recipients.

**Pancreas Allocation**

Pancreas allocation: Allocation is by waiting time since listed.

**New Zealand Renal Transplant Service papers and reports** are published on www.health.govt.nz/about-ministry/leadership-ministry/expert-groups/national-renal-transplant-service/nrts-papers-and-reports

**The New Zealand Kidney Allocation Scheme** [[5]](#footnote-5)has been developed to ensure that kidney allocation in NZ is performed on an equitable, accountable and transparent basis. This algorithm is used for the allocation of all deceased donor kidneys and non-directed live donors.

1. www.health.govt.nz/publication/increasing-deceased-organ-donation-and-transplantation-national-strategy [↑](#footnote-ref-1)
2. www.health.govt.nz/our-work/digital-health/other-digital-health-initiatives/telehealth

The Council defines telehealth as “the use of information and communications technologies, to deliver health services and transmit health information over both long and short distances”. [↑](#footnote-ref-2)
3. The Operational Policy Framework is updated annually and published at: http://nsfl.health.govt.nz/accountability/operational-policy-framework-0 [↑](#footnote-ref-3)
4. Operational; Policy Framework see https://nsfl.health.govt.nz/accountability/operational-policy-framework-0 [↑](#footnote-ref-4)
5. www.health.govt.nz/about-ministry/leadership-ministry/expert-groups/national-renal-transplant-service/nrts-papers-and-reports [↑](#footnote-ref-5)