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|  | 20 District Health Boards |
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| specialist medical and surgical services -– diabetes servicesASSESSMENT AND SUPPORT FOR PEOPLE WITH HIGH RISK TYPE 1 DIABETES (INSULIN PUMPS) servicesTIER level THREESERVICE SPECIFICATION | |
| Status:Approved for use for nationwide mandatory description of services to be provided | MANDATORY 🗹 |
| Review History | Date |
| Published on NSFL | **December 2003** |
| Consideration for next Service Specification Review | **within five years** |

**Note:** Contact the Service Specification Programme Manager, National Health Board Business Unit, 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: <http://www.nsfl.health.govt.nz/>

# SPECIALIST MEDICAL AND SURGICAL SERVICES –

# DIABETES SERVICES

# ASSESSMENT AND SUPORT FOR PEOPLE WITH HIGH

# RISK TYPE 1 DIABETES (INSULIN PUMPS) SERVICES

# TIER LEVEL THREE

# SERVICE SPECIFICATION

**M20010, M20015**

This Tier 3 Service Specification for Insulin Pumps is linked to the overarching Tier 2 Diabetes Service Specification. This service specification is also linked to the following diabetes service specifications:

* Local Diabetes Team
* Free annual review for people with diabetes
* Diabetes retinal screening

The impact of diabetes in New Zealand is significant and will become more so as the prevalence of type 2 diabetes increases. The prevalence of known diabetes across the population of New Zealand is currently estimated at around 3%. Within the population however the prevalence of diabetes in Maori and Pacific populations is around three times higher than among other New Zealanders.

Reducing the incidence and impact of diabetes is one of the thirteen New Zealand Health Strategy immediate action priority objectives for population health. Diabetes is also one of eight Maori Health Gain priority areas.

1. **Definition**

This service specification is for a regional service, for people with Type 1 diabetes who are not achieving satisfactory control of hypoglycaemia or are at risk of diabetic keto-acidosis using multiple daily insulin injection regimes (MDI). The service includes the provision of Continuous Sub-cutaneous Insulin Injections (insulin pumps) and consumables including assessment, support (including dietetic advice), and on-going review.

1. **Service objectives**
   1. ***General***

The objective of this service is to provide insulin pumps, or other treatment modalities for which evidence of effectiveness is established in the future, to people with Type 1 diabetes who meet the clinical priority access criteria below.

* 1. ***Maori Health***

These services will be provided in a way that will contribute to the objectives of He Korowai Oranga - the Maori Health Strategy as referred to in the New Zealand Health Strategy. In particular, to increase access to high quality and effective health and disability services which improve Maori health and reduce inequalities between Maori and non-Maori.

1. **Service users**

This service is for people of **all** age groups with Type 1 diabetes who are not achieving satisfactory control of hypoglycaemia or are at risk of diabetic keto-acidosis using MDI regimes.

1. **Access**

***4.1 Entry and Exit Criteria***

**Entry criteria:**

People with Type 1 diabetes meeting the clinical priority access criteria below and should be referred by a secondary hospital diabetes clinic. Direct referral by GPs is not intended. The secondary hospital diabetes clinic must have attempted to maximise the effectiveness of MDI in preventing hypoglycaemia and diabetic keto-acidosis prior to referral.

Patients who have insulin pumps funded by non-government organisations (for example sponsored by Lions Club) may receive this service, provided that it is clinically indicated. This service must be provided on the basis of clinical priority. It is not acceptable for individuals to access the service, and have consumables funded, solely on the basis that they can personally fund the initial cost of an insulin pump.

**Clinical Priority Access Criteria** (listed in no particular order of priority)

Patients with Type 1 diabetes:

* with hypoglycaemic unawareness and autonomic neuropathy
* suffering recurrent **severe** hypoglycaemic episodes
* with poor glycaemic control and unacceptable fasting blood glucose levels due to a marked dawn phenomenon especially adolescents
* with poor glycaemic control despite multiple daily injections who are proven to have improved control with a trial of insulin pump therapy
* and recurrent diabetic keto-acidosis despite all efforts to avoid it
* with eating disorders (in highly selected cases)
* and other chronic illness eg coeliac disease
* variable or prolonged insulin action

## Patient and caregiver/parents requirements

Patients/caregivers/parents must:

* have the patient on optimal conventional therapy
* monitor and record blood glucose a minimum of four times per day, and make appropriate adjustments
* be responsible and psychologically stable
* be willing to quantitate food intake, especially carbohydrate in the diet
* be willing to comply with medical/nursing follow-up
* be able to cope with and manage the technical challenges of the equipment
* have committed parental/caregiver supervision in diabetes care

**Exit criteria:**

People with ongoing pump or other special treatment modalities funded by the service should be reviewed each year to establish the continuing effectiveness of the special treatment offered. This may result in a decision to revert to MDI or other treatment modalities.

**5. Service Components**

* 1. ***Processes***

The regional service must use a documented assessment process, and attempt first to maximise MDI. This may require continuous glucose monitoring (using interstitial glucose sensors). The regional service should support secondary hospital diabetes services where it is practicable to undertake this assessment remotely.

The service should include a detailed programme for pre-insulin pump assessment, implementation, support, and on-going review of patients on insulin pumps. The service should provide for a trial period of insulin pump therapy to suitable patients.

Personnel requirements include:

* a specialist diabetes physician/paediatrician with experience in the selection and supervision of patients on insulin pumps
* a diabetes Nurse Educator trained in continuous glucose monitoring and insulin pump therapy
* a dietician with experience in providing appropriate dietary education for patients planning to use insulin pumps

***5.2 Settings***

This service will be based in the 5 DHBs providing tertiary hospital services – Auckland, Waikato, Wellington, Canterbury and Otago.

**5.3 Facilities**

The service may offer insulin pumps or other special treatment modalities for which evidence of effectiveness is established in the future.

The service should also provide access to interstitial blood glucose monitoring equipment.

**6. Service Linkages**

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| --- | --- | --- |
| Linked providers | **Nature of linkages** | **Accountabilities associated with linkages** |
| * Local Diabetes Team | Register of patients | Annual report |

**7. Quality Requirements**

***7.1 General***

This service is required to comply with the Provider Quality Specifications in the overarching Specialist Medical and Surgical and Services for Children and Young People Service Specifications.

**8. Reporting requirements**

***8.1 Purchase units***

M20010 is the purchase unit as defined in the Data Dictionary applying to all age groups of people requiring High Risk type 1 Diabetes Assessment and Support.

M20015 is the purchase unit as defined in the Data Dictionary for additional funding for children and young people up to 18 years of age requiring High Risk type 1 Diabetes Assessment and Support.

***8.2 Information reporting requirement***

For each referral the service must maintain a register that includes:

* the NHI and patient demographics including ethnicity.
* the indications for referral (using the referral criteria in this service specification).
* the report and outcome from an assessment using continuous glucose monitoring (if applicable).
* the final treatment (including optimised MDI, insulin pump, other specific treatment modalities, or assessment and treatment not completed).

***8.3 Annual reporting requirements***

Each year, the service must report to Sector Services, Dunedin and the Local Diabetes Team or equivalent service in the region:

* free annual review for individuals with diabetes.