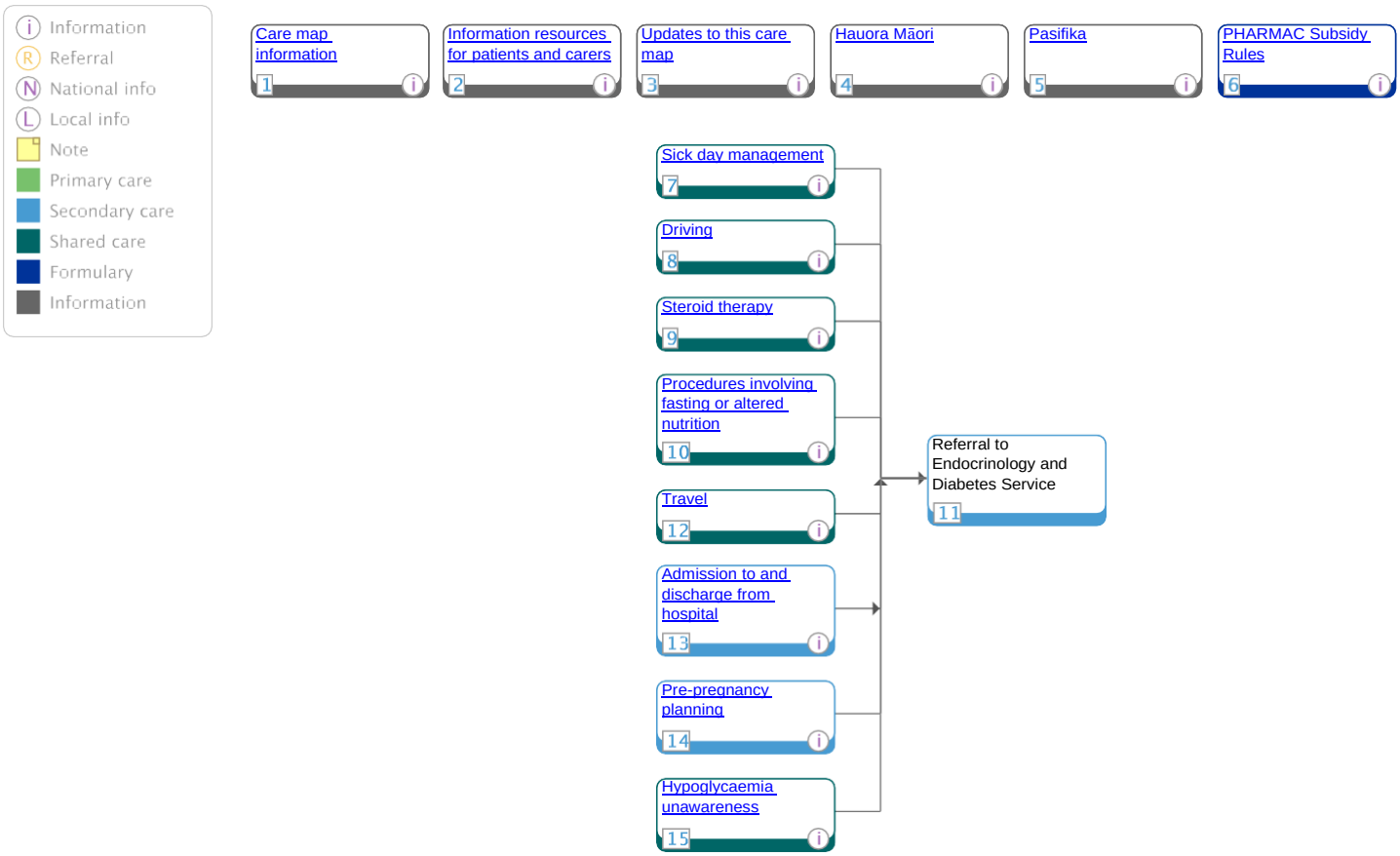
Diabetes – Special Circumstances

Medicine > Endocrinology > Diabetes



1. Care map information

Abbreviations:

- ACE Inhibitor - Angiotensin Converting Enzyme Inhibitor
- ARB - Angiotensin Receptor Blocker
- ARC - Aged Residential Care
- BMI - Body Mass Index
- CHO - Carbohydrate
- DKA - Diabetic ketoacidosis
- eGFR - Estimated Glomerular Filtration Rate
- GI - Glycaemic index
- HbA1c - Glycated haemoglobin
- HHNS - Diabetic hyperosmolar hyperglycaemic non-ketotic syndrome
- MODY - Maturity onset diabetes in youth
- NDNKSF - National Diabetes Nursing Knowledge and Skills Framework
- OGTT - Oral glucose tolerance test.

References:
See Provenance Certificate for full list of references.

2. Information resources for patients and carers

Blind + Low Vision NZ

Te Ara Whānau Ora Brochure

- Te Ara Whānau Ora Brochure

Patient Pathway
Click here for patient version of Pathway

3. Updates to this care map

Date of draft publication: May 2013
Interim update:
This care map has been updated in line with consideration to evidenced based guidelines.

For further information on contributors and references please see the care map's Provenance.
NB: This information appears on each page of this care map.

4. Hauora Māori

Māori are a diverse people and whilst there is no single Māori identity, it is vital practitioners offer culturally appropriate care when working with Māori whānau. It is important for practitioners to have a baseline understanding of the issues surrounding Māori health.

This knowledge can be actualised by (not in any order of priority):

- acknowledging Te Whare Tapa Wha (Māori model of health) when working with Māori whānau

- asking Māori clients if they would like their whānau or significant others to be involved in assessment and treatment
- asking Māori clients about any particular cultural beliefs they or their whānau have that might impact on assessment and treatment of the particular health issue (Cultural issues)
- consider the importance of whānaungatanga (making meaningful connections) with their Māori client / whānau
- knowledge of Whānau Ora, Te Ara Whānau Ora and referring to Whānau Ora Navigators where appropriate
- having a historical overview of legislation that has impacted on Māori well-being

For further information:

- Hauora Māori
- Central PHO Maori Health website

5. Pasifika

Pacific Cultural Guidelines (Central PHO) 6MB file

Our Pasifika community:

- is a diverse and dynamic population:
  - more than 22 nations represented in New Zealand
  - each with their own unique culture, language, history, and health status
  - share many similarities which we have shared with you here in order to help you work with Pasifika patients more effectively

The main Pacific nations in New Zealand are:

- Samoa, Cook Islands, Fiji, Tonga, Niue, Tokelau and Tuvalu

Acknowledging *The FonoFale Model (pasifika model of health)* when working with Pasifika peoples and families.

Acknowledging general pacific guidelines when working with Pasifika peoples and families:

- Cultural protocols and greetings
- Building relationships with your pasifika patients
- Involving family support, involving religion, during assessments and in the hospital
- Home visits
- Contact information

Pasifika Health Service - Better Health for Pasifika Communities:

- the Pasifika Health Service is a service provided free of charge for:
  - all Pasifika people living in Manawatu, Horowhenua, Tararua and Otaki who have long term conditions
  - all Pasifika mothers and children aged 0-5 years
- an appointment can be made by the patient, doctor or nurse
- the Pasifika Health Service contact details are:
  - Palmerston North Office - 06 354 9107
  - Horowhenua Office - 06 367 6433
- Better Health for Pasifika Communities brochure

Additional resources:

- Ala Mo'ui - Pathways to Pacific Health and Wellbeing 2010-2014
- Primary care for pacific people: a pacific health systems approach
- Tupu Ola Moui: The Pacific Health Chart Book 2004
- Pacific Health resources
- List of local Maori/Pacific Health Providers

- Central PHO Pacific Health website

6. PHARMAC Subsidy Rules

According to the Pharmaceutical Schedule and updates, as of 1 April 2012 the following subsidy rules applied: **Insulin Syringes**

- Disposable with attached needle
- Maximum of 100 per prescription (prescribed on the same prescription as the one used for the supply of insulin or when prescribed for an insulin patient and the prescription is endorsed accordingly)
- Sizes: 0.3mL, 0.5mL and 1mL Gauge: 29g and 31g
- Needle size: 12.7mm or 8mm
- Subsidised brands: ABM, DM Ject, B-D Ultra Fine

Insulin Pen Needles

- Maximum of 100 per prescription (prescribed on the same prescription as the one used for the supply of insulin or when prescribed for an insulin patient and the prescription is endorsed accordingly) Gauge: 29g, 31g and 32g
- Sizes: 12.7mm (29g), 8mm (31g), 6mm (31g), 5mm (31g), 4mm (32g)
- Subsidised brands: ABM, B-D Micro Fine, SC Profi-Fine, Fine Ject (Note: Not all of the above brands are available in multiple sizes or gauge).

Blood Glucose Testing

- Maximum of 50 strips per prescription unless: Prescribed with insulin or a sulphonylurea on same prescription. Prescribed on different prescription page from insulin or a sulphonylurea and the prescription is endorsed accordingly. Prescribed for a pregnant woman with diabetes and prescription is endorsed accordingly

Ketone Testing

- Maximum of 20 strips per prescription
- Not available on BSO
- Subsidised brands: Optimum Blood Ketone Test Strips

Blood Glucose Meters

- Maximum of 1 meter per prescription
- Subsidised for patients who begin insulin or sulphonylurea therapy after March 2005 (or prescribed to a pregnant woman with diabetes)
- Only 1 meter per patient (no further prescriptions will be subsidised)
- The prescription must be endorsed accordingly

7. Sick day management

During periods of ill health, blood glucose levels can be unstable due to increased stress hormones which impair the glucose response to insulin. Close monitoring is required [24].

Also see Australian Diabetes Educators Association Guide on Sick Day Management (including action plan)

Insulin treated Diabetes:

Frequent blood glucose monitoring and ketone levels is indicated

- if blood glucose < 4.0mmol/L
- ketones - two to four hourly when blood glucose is >15.0 mmol/L and/or signs of illness present
- for greater accuracy blood ketone testing is preferred, when available
- adequate fluid intake is required to avoid dehydration
- substitute meals with simple foods or sips of fluid every two hours

Do not withhold insulin:
Consult with Diabetes and Endocrinology Service and admit to hospital if no improvement within 8 hours.

Type 2 Not on Insulin:
Oral hypoglycaemic agents **should be continued:**

- metformin should be withheld during periods of vomiting and/or diarrhoea
- sulphonylureas may cause hypoglycaemia if food intake is inadequate
  - blood glucose monitor 4 hourly
  - further review if vomiting continues [24]

Parameters of blood glucose levels:
Blood glucose of <4.0 mmols/L and > 15 mmols/L with or without ketones on more than 2 occasions require further assessment [24].

8. Driving

The risks of driving are much higher in type 1 and type 2 diabetes when there is a risk of hypoglycaemia.

All people on insulin with an endorsed license must have an annual review with the diabetes physician.

For patients on insulin, blood glucose monitoring is required every 2 hours when driving a long distance:

- recognition and management of hypoglycaemia education should be provided.
- patients should carry blood glucose monitoring records and oral glucose source for treatment of hypoglycaemia when driving.
- patients with hypoglycaemia unawareness **SHOULD be provided with clear parameters for blood glucose levels and regular testing to ensure safety.**
- those with a commercial licence (class 2 - 5) need to test before driving and 2 hourly and must carry a glucose monitoring kit.

See Diabetes.org information on Land Transport guidelines

9. Steroid therapy

Steroids increase blood glucose levels.

- more frequent monitoring of blood glucose is indicated when on steroids
- warn patients of the likelihood steroids may cause profound hyperglycaemia
- for those on oral hypoglycaemic agents (OHA) or insulin, a temporary increase in the morning dose is usually required
- management should be individualised according to pre-existing treatment and control. Some patients may be required to commence on insulin therapy [24]

Refer to or consult with the Diabetes and Endocrinology Service.

10. Procedures involving fasting or altered nutrition

This includes:

- dental procedures
- medical Imaging
- preparation for surgery
- gastroenterology procedures

A morning appointment is indicated.

GP to ensure medical imaging is aware patient has diabetes.

If fasting is required, withhold oral hypoglycaemic agents (OHA) until after the procedure and normal diet is resumed.

Colonoscopy procedures require altered diet and bowel preparation, therefore OHA and insulin doses may need to be adjusted. Hypoglycaemia is a potential risk.

For procedures requiring contrast, Metformin must be withheld day of procedure and not commenced until creatinine is known to be normal.

Refer to Diabetes and Endocrinology Service for temporary OHA / Insulin dose adjustments (patients may self- refer)

12. Travel

Those requiring insulin and/or Sulphonylureas require an individualised plan.

Some of the common issues of travelling for people with diabetes include:

- delayed flights resulting in delayed meals
- changes to time zones
- changes in the type and amount of food eaten
- unavailability of appropriate food or drink
- different amounts of physical activity than usual

Ensure patients are aware to:

- monitor blood glucose levels regularly
- be aware of time zones
- carry sufficient insulin supplies and blood glucose meter in their carry-on luggage
- keep prescribed medications in pharmacy dispensed packaging
- carry the letter from the GP for customs purposes

General traveling with diabetes information for patients
Information on travel to and from the United States
Information on travel to and from the UK

Type 2 diabetes:

- Patient information on diabetes.org website

Type 1 diabetes:

- Patient information on diabetes.org website

If you need further advice, refer to Diabetes and Endocrinology Service.

13. Admission to and discharge from hospital

Hospital Admission and Discharge:

- maintenance of optimal glycaemic control is essential
- avoidance of hypoglycaemia is important

Refer to Clinical Nurse Specialist for input with complex cases.
Read "Treating Diabetes in Hospital".

Discharge:

- discharge prescription should contain complete current medication regimen, to prevent confusion. This includes insulin syringes/pen needles.
- ensure funding requirements are met on the prescription (special authorities etc), or the patient will be without medication
- pharmacy can hold or not dispense items not needed immediately
- ensure patient has had due doses before discharge
- give starter supply of medications if late afternoon or Friday night, especially uncommon medications, which may take time for a pharmacy to source [28]

14. Pre-pregnancy planning

Immediate referral to Diabetes and Endocrinology Service for women with type 1 or type 2 diabetes who are planning a pregnancy.

15. Hypoglycaemia unawareness

Frequent blood glucose monitoring is required:

- review of antihyperglycaemic agents is indicated [24]
- review of diabetes self-management is indicated
- refer to Diabetes and Endocrinology Service for assessment and management plan as required
- often in older patients – consider a personal alarm [28]

Diabetes

Provenance Certificate

Overview | Editorial methodology | References | Contributors | Disclaimers

Overview

This document describes the provenance of MidCentral District Health Board's **Diabetes** pathway. This pathway is regularly updated to include new, quality-assessed evidence, and practice-based knowledge from expert clinicians. Please see the Editorial Methodology section of this document for further information.

This localised pathway was last updated in **October 2017**.

For information on changes in the last update, see the information point entitled 'Updates to this care map' on each page of the pathway.

One feature of the "Better, Sooner, More Convenient" (BSMC) Business Case, accepted by the Ministry of Health in 2010, was the development of 33 collaborative clinical pathways (CCP).

The purpose of implementing the CCP Programme in our DHB is to:

- Help meet the Better Sooner More Convenient Business Case aspirational targets, particularly the following:
    - Reduce presentations to the Emergency Department (ED) by 30%
    - Reduce avoidable hospital admissions to Medical Wards and Assessment Treatment and Rehabilitation for over-65-year-olds by 20%
    - Reduce poly-pharmacy in the over-65-year-olds by 10%
- Implement a tool to assist in planning and development of health services across the district, using evidence-based clinical pathways.
- Provide front line clinicians and other key stakeholders with a rapidly accessible check of best practice;
- Enhance partnership processes between primary and secondary health care services across the DHB.

To cite this pathway, use the following format:

Map of Medicine. Medicine. MidCentral District View. Palmerston North: Map of Medicine; 2014 (Issue 1).

Editorial methodology

This care map was based on high-quality information and known Best Practice guidelines from New Zealand and around the world including Map of medicine editorial methodology. It has been checked by individuals with front-line clinical experience (see Contributors section of this document).

Map of Medicine pathways are constantly updated in response to new evidence. Continuous evidence searching means that pathways can be updated rapidly in response to any change in the information landscape. Indexed and grey literature is monitored for new evidence, and feedback is collected from users year-round. The information is triaged so that important changes to the information landscape are incorporated into the pathways through the quarterly publication cycle.

References

This care map has been developed according to the Map of Medicine editorial methodology. The content of this care map is based on high-quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience. This localised version of the evidence-based, practice- informed care map has been peer-reviewed by stakeholder groups and the CCP Programme Clinical Lead.

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Contributors

MidCentral DHB's Collaborative Clinical Pathway editors and facilitators worked with clinical stakeholders such as front-line clinicians and pharmacists to gather practice-based knowledge for its care maps.

The following individuals contributed to the update of this care map:

- Dr Stephan Lombard, General Practitioner, Cook Street Health Centre
- Dr Paul Cooper, Medical Director & Clinical Director Acute Care, Central PHO
- Tracey McNeur, Primary Care Nurse Specialist, Long Term Conditions, Kauri HealthCare
- Lois Nikolajenko, Clinical Nurse Specialist, Diabetes & Long Term Conditions (Primary Care Clinical Lead)
- Julie Wells, Clinical Advisor Pharmacist, Central PHO
- Julie Berquist, Clinical Community Nurse Long Term Conditions, Central PHO
- Lynette Law, Clinical Community Nurse, Long Term Conditions, Central PHO
- Dr Helen Snell, Nurse Practitioner, Diabetes and Related Conditions, MCH (Secondary Care Clinical Lead)
- Shelley Mitchell, Diabetes Specialist Dietician, MCH
- Liz Elliott, Clinical Advisor Health of Older People, MidCentral DHB (Editor)

The following individuals contributed to the original development of this care map:

- Dr Alistair Watson, Director, Integrated Care, MDHB (Facilitator)
- Beth McPherson, Clinical Nurse Specialist, Acute Care, Health Care Development (Pathway editor)
- Dr Esther Willis, General Practitioner (Primary care clinical lead)
- Gary Smith, Pharmacist
- Dr Helen Snell, Nurse Practitioner, Diabetes, MidCentral Health(Secondary Care Clinical Lead)

- Lois Nikolajenko, Clinical Nurse Specialist, Diabetes and Long Term Conditions, Health Care development, MDHB
- Michelle McKenzie, Practice Nurse
- Dr Owais Chaudhri, Endocrinologist/Diabetologist, MidCentral Health(Secondary Care Clinical Lead)
- Shirley-Anne Gardiner, Project Director, Health Care Development, MidCentral DHB (Pathway editor)
- Tracey McNeur, Practice Nurse

Other contributors:

- Adrienne Kennedy, Community Clinical Nurse- Long Term Conditions, CPHO
- Alison Fellerhoff, Clinical Nurse Specialist, Diabetes, MidCentral Health
- Bernadette Donaldson, Community Clinical Nurse- Long Term Conditions, CPHO
- Brenda Moana, Outreach Nurse, CPHO
- Dee Rixon, Team Leader, Community Clinical Nurse- Long term Conditions, Central Primary Health Organisation
- (CPHO)
- Jayne Spenceley, Team leader, PHO Dietetic Service
- Lesley Pearce, Manager, Spotless Dietitian Services
- Lisa Cherrington, Maori Health Advisor
- Lynette Law, Community Clinical Nurse- Long Term Conditions, CPHO
- Mataroa Mar, Director, Maori Health, CPHO
- Dr Norman Panlilio, Nephrologist, MidCentral Health
- Dr Paul Dixon, Endocrinologist/Diabetologist, MidCentral Health
- Pauline Giles, Nurse Practitioner, Diabetes, MidCentral Health
- Shelley Mitchell, Diabetes Specialist Dietitian, MidCentral Health
- Syed Zaman (RMO Director/ Geriatrician, MidCentral Health
- Sylvia Meijer, Nurse Practitioner, Older People, Central PHO
- Dr Tim Crowe, General Practitioner

Disclaimers

Clinical Board Central PHO, MidCentral DHB

It is not the function of the Clinical Board Central PHO, MidCentral DHB to substitute for the role of the clinician, but to support the clinician in enabling access to know-how and knowledge. Users of the Map of Medicine are therefore urged to use their own professional judgement to ensure that the patient receives the best possible care. Whilst reasonable efforts have been made to ensure the accuracy of the information on this online clinical knowledge resource, we cannot guarantee its correctness and completeness. The information on the Map of Medicine is subject to change and we cannot guarantee that it is up-to-date.