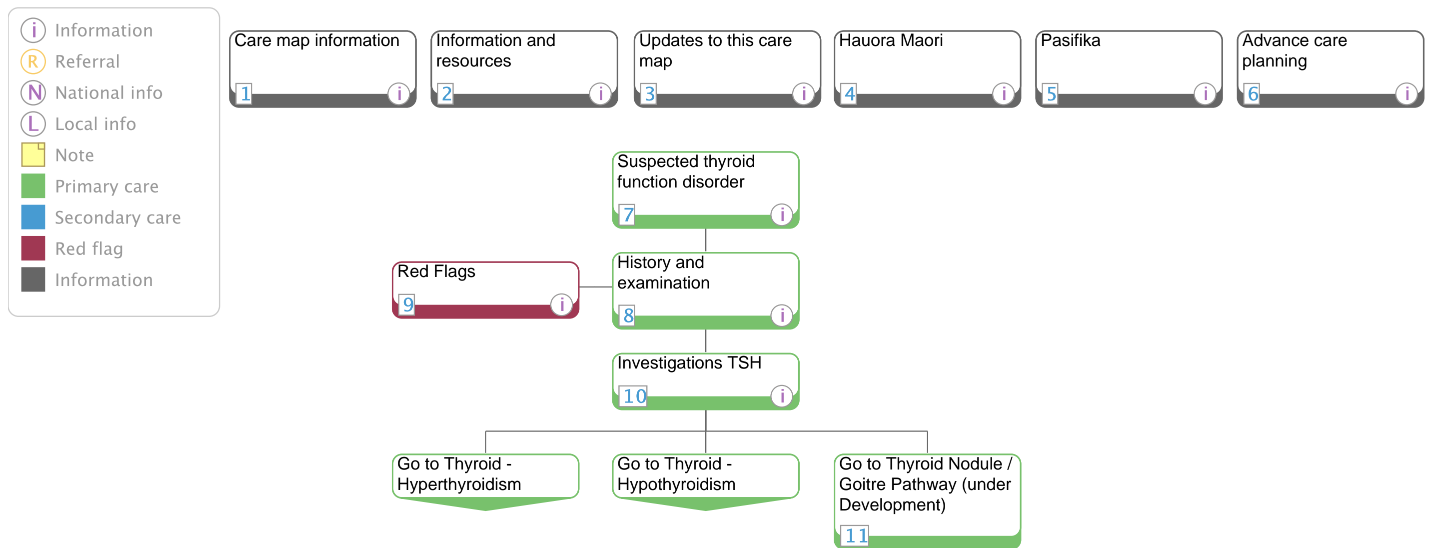
Suspected thyroid disorder

Medicine > Endocrinology > Thyroid



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1 Care map information

Quick info:

In scope:

- causes and clinical features of hyperthyroidism
- causes and clinical features of hypothyroidism
- clinical assessment of hyper- and hypothyroidism
- use of thyroid function tests (TFTs) for diagnosis
- adults age 18 years and older, and pregnant women, in primary and secondary care settings

Out of scope:

- assessment and management of thyroid disorders in children

Definition:

- hypothyroidism is caused by underactivity of the thyroid gland:
  - primary hypothyroidism describes thyroid hyposecretion due to primary thyroid gland disease
  - a fall in thyroid hormone results in increased secretion of thyroid stimulating hormone (TSH) and elevation of serum TSH concentrations
  - secondary hypothyroidism is caused by insufficient TSH stimulation of the thyroid gland due to pituitary dysfunction
  - tertiary hypothyroidism is due to diminished hypothalamic thyroid releasing hormone (TRH) release, causing decreased pituitary stimulation and reduced TSH
  - secondary and tertiary hypothyroidism are termed 'central hypothyroidism'
- hyperthyroidism is caused by overactivity of the thyroid gland
- goitre refers to enlargement of the thyroid gland which may or may not cause under or over activity of the gland

Incidence and prevalence:

In the UK, the prevalence of spontaneous hypothyroidism is between 1% and 2%

- in the UK, the reported overall prevalence of hyperthyroidism is between 0.5% and 6.3%
- hypo and hyperthyroidism is 10 times more common in women than men
- for New Zealand specific information see references

References:

[1] BPAC - Management of thyroid dysfunction in adults
bpac.org.nz/BPJ/2010/December/docs/bpj_33_thyroid_pages_22-32.pdf[

[2] Cox, S.C., Elson, M. S., & Conaglen, J.V. (2014) The management of Graves Disease in New Zealand 2014. Endocrinology Unit Waikato. 12th Annual Endocrinology Midlands Meeting, May15th 2015. Hamilton, New Zealand. (presentation).

[3] JAU Tamatea, P Reid, MS Elston, JV Conaglen. Whakangungu R#kau: Incidence of thyrotoxicosis for M#ori. 12th Annual Endocrinolgy Midlands Meeting. May 15th 2015. Hamilton (presentation)

[4] Madariaga, A. G., Palacios, S. S., Guillen-Grima, F., & Galofre, J. C. (2014). The Incidence and Prevalence of Thyroid Dysfunction in Europe: A Meta- Analysis. *Journal of Clinical Endocrinology & Metabolism*, 99 (3), 923-931.

[5] Published by Endocrine Education Inc, South Dartmouth, MA 02748
Thyroidmanager

2 Information and resources

Quick info:

- Management of thyroid dysfunction in adults.
- Goitre (thyroid swelling)' (PDF) from Patient UK
- Healthtalkonline'
- 'Hyperthyroidism - overactive thyroid'
- Hypothyroidism - underactive thyroid' (PDF) from Patient UK

- Thyroid function tests' (PDF) from Patient UK
- Thyroid scans and uptake tests' (PDF) from Patient UK
- Thyroid manager

Language translation assistance:

HBDHB Interpreting Service. To make an appointment (charges may apply):

- phone 06 878 8109 ext 5805 or
- email interpreting@hawkesbaydhb.govt.nz

These websites may help with simple words and phrases:

- Babelfish
- Google translate

Language Line. Professional interpreters are available, free of charge, for telephone-based sessions (44 languages are supported):

- Phone 0800 656 656
- Monday - Friday 9am - 6pm
- Saturday 9am - 2pm

Bookings are not usually necessary. For longer consultations (for example, a nurse consultation for a newly diagnosed person) it is best to make a booking at least 24 hours in advance by calling the above number or emailing language.line@dia.govt.nz and providing your contact details and a summary of the service you require (time and date of the meeting, language, approximate length of the appointment, gender of interpreter (if relevant).

3 Updates to this care map

Quick info:

Date of publication: September 2016.

Due date for review: March 2017.

This care map has been developed in line with consideration to evidenced based guidelines.

For further information on contributors and references please see the Pathway's Provenance Certificate.

4 Hauora Maori

Quick info:

Maori are a diverse people and whilst there is no single Maori identity, it is vital practitioners offer culturally appropriate care when working with Maori whanau. It is important for practitioners to have a baseline understanding of the issues surrounding Maori health. This knowledge can be actualised by (not in any order of priority):

- considering the importance of introductions ('whanungatanga') - a process that enables the exchange of information to support interaction and meaningful connections between individuals and groups. This means taking a little time to ask where this person is from or where they have significant connections to
- asking Maori people if they would like their whanau or significant others to be involved in assessment and treatment
- asking Maori people about any particular cultural beliefs they or their whanau have that might impact on assessment and treatment of the particular health issues

Maori health services

HBDHB contracts Maori health providers to deliver community based nursing and social support servcies. A referral to one of these providers may assist Maori people to feel more comfortable about receiving these services.

Central Hawke’s Bay:

Central Health

Cnr Herbert & Ruataniwha Streets, Waipukurau

Phone: 06 858 9559 Fax: 06 858 9229

Email: reception@centralhealth.co.nz

Hastings:

Te Taiwhenua o Heretaunga

821 Orchard Road, Hastings 4156

Phone: 06 871 5350 Fax: 06 871 535
Email: taiwhenua.heretaunga@ttoh.iwi.nz
Kahungunu Health Services (Choices)
500 Maraekakaho Road, Hastings
Phone: 06 878 7616
Email: kahungunu@paradise.net.nz
Napier:
Te Kupenga Hauora
5 Sale Street, Napier
Phone: 06 835 1840
Email: info@tkh.org.nz
Wairoa:
Kahungunu Executive (no website)
65 Queen Street, Wairoa 4108
Phone: 06 838 6835 Fax: 06 838 7290
Email: kahu-exec@xtra.co.nz
Secondary care Maori HealthServices:
Hawke's Bay DHB - Te Wahanga Hauora Maori Health Services
Phone: 06 878 8109 Ext 5779, 06 878 1654 or 0800 333 671 Email: admin.maorihealth@hawkesbaydhb.govt.nz
Further Information
Practitioners should be versed in the knowledge of:

- historical overview of legislation that impacted on Maori well-being
- Maori models of health, such as Te Whare Tapa Wha and Te Wheke when working with Maori whanau
- national Maori Health Strategies:
  - **Mai Maori Health Strategy 2014-2019** - Full file or Summary diagram
  - **He Korowai Oranga**: Maori Health Strategy - sets the Government's overarching framework to achieving the best health outcomes for Maori
- local Hawke's Bay health sector's strategies and initiatives for improving Maori health and wellbeing

Cultural Competency Training
Training is available through the Hawke's Bay DHB to assist you to better understand Maori culture and to better engage with Maori people. Contact the coordinator Email: education@hbdhb.govt.nz to request details of the next courses.

5 Pasifika

Quick info:
Pacific people value their culture, language, families, education and their health and wellbeing. Many Pacific families have a religious affiliation to a local church group.
The Pacific people are 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 in order to help you work with Pacific people more effectively
- for many families language, cost and access to care are barriers

Pacific ethnic groups in Hawke's Bay include Samoa, Cook Islands, Fiji, Tonga, Niue, Tokelau, Kiribati and Tuvalu. Samoan and Cook Island groups are the largest and make up two thirds of the total Pacific population. There is a growing trend of inter-ethnic relationships and New Zealand born Pacific populations.
Acknowledge The FonaFale Model (Pacific model of health) when working with Pacific peoples and families.
General guidelines when working with Pacific peoples and families (information developed by Central PHO, Manawatu):

- Cultural protocols and greetings
- Building relationships with your Pacific people
- Involving family support and religion during assessments and in the hospital
- Home visits

Hawke's Bay-based resources:

- HBDHB interpreting service website **or** phone 06 8788 109 ext.. 5805 (no charge for the hospital; charges may apply for community-based translations) **or** contact coordinator at interpreting@hbdhb.govt.nz
- Pacific Navigation Services Ltd Phone: 027 971 9199
- services to assist Pacific peoples to access healthcare (SIA)
- Improving the Health of Pacific People in Hawke's Bay - Pacific Health action Plan

Ministry of Health resources:

- Ala Mo'ui Pathways to Pacific Health and wellbeing 2014-2018
- Primary Care for Pacific people: a Pacific and health systems approach
- Health education resources in Pacific languages (links to a web page where you can download resources)

6 Advance care planning

Quick info:

Advance Care Planning:

Advance Care Planning is a voluntary process of discussion and shared planning for future health care. It involves the person who is preparing the plan, and usually involves family/whanau and health care professionals.

Advance Care Plan:

An Advance Care Plan is the outcome of Advance Care Planning. It is formulated by the person and sets out their views about care towards the end of their life. It may also include views about medical care and a wide range of other matters. An Advance Care Plan may include an Advance Directive.

Advance Directive:

An Advance Directive is a statement a person makes about their medical care in the future and becomes effective if a person ceases to be competent to make decisions for themselves. An Advance Directive is legally binding if made in appropriate circumstances.

Competency and Advance Care Planning:

Competent people have the right to make autonomous decisions that as medical professionals we may regard as imprudent, and sometimes such decisions are a reflection of the person''s longstanding personality, beliefs or lifestyle. This right is described in the Health and Disability Consumers Rights Acts.

According to ACP - A Guide for the NZ Health Care Workforce - "in the context of ACP, competency relates to an individual's ability to make a decision regarding their own health care (that is, competence at decision-making or decision-capacity). At a minimum, decision making capacity requires the ability to understand and communicate, to reason and deliberate, and the possession of a set of values".

Helpful websites:

- The code of rights
- Advance care planning guide Ministry of Health
- Advance care planning resources

7 Suspected thyroid function disorder

Quick info:

Spectrum of possible signs and symptoms of **hyperthyroidism** include:

- nervousness and irritability
- palpitations and tachycardia
- heat intolerance or increased sweating
- tremor
- weight loss or gain
- alterations in appetite
- frequent bowel movements or diarrhoea
- dependent lower extremity oedema
- exertional intolerance and dyspnoea
- decreased menstrual flow

- impaired fertility
- mental disturbances
- sleep disturbances
- changes in vision
- fatigue and muscle weakness
- thyroid enlargement
- sudden paralysis

Spectrum of possible signs and symptoms of **hypothyroidism** include:

- fatigue
- weight gain due to fluid retention
- dry skin and cold intolerance
- yellow skin
- coarseness or loss of hair
- hoarseness
- goitre
- reflex delay
- ataxia
- constipation
- memory and mental impairment
- decreased concentration
- depression
- irregular or heavy menses
- myalgias
- hyperlipidaemia
- bradycardia and hypothermia

The severity of the signs and symptoms may be related to the duration of the illness and the age of patient.

Causes of hyperthyroidism:

- Graves' disease
- toxic multinodular goitre
- toxic adenoma
- painful subacute thyroiditis
- silent thyroiditis including lymphocytic and post-partum variations
- iodine-induced hyperthyroidism
- excessive pituitary TSH
- excessive ingestion of thyroid hormone

Causes of hypothyroidism:

- chronic autoimmune thyroiditis (Hashimoto's disease)
- surgical removal of the thyroid gland
- thyroid gland ablation
- external irradiation
- medications, eg lithium and interferon

Diagnosis:

- thyroid function is tested by taking blood samples to test for serum TSH and free thyroxine (T4)

References:

[5] Thyroid manager

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8 History and examination

Quick info:

A comprehensive history should be taken, including:

- family history of:
  - autoimmune disease
  - thyroid disease
  - cancer
- medications with large amounts of iodine, e.g:
  - expectorants
  - amiodarone
  - health food supplements containing seaweed
  - iodinated contrast dyes (can induce thyrotoxicosis in patients with autonomous thyroid nodules)
- previous head or neck irradiation
- rate of growth of any neck masses
- dysphonia, dysphagia, dyspnoea
- last menstrual period or possible pregnancy
- immigration from iodine-deficient area

A thorough examination should be performed, including:

- weight
- blood pressure (BP)
- pulse rate and cardiac rhythm
- thyroid palpation and auscultation
- eye examination
- lymphatic examination– this includes recording:
-
  - location, consistency and size of any nodules
  - neck tenderness or pain
  - cervical adenopathy

NB: clinical symptoms or signs alone are insufficient to make a diagnosis of thyroid dysfunction.

NB: most thyroid nodules are asymptomatic, and an absence of such symptoms does not rule out malignancy.

References: [5] Thyroid manager

9 Red Flags

Quick info:

Urgent referral to Endocrinology required for person with significant hyperthyroidism and cardiac co-morbidity. Referral through electronic referrals centre or phone Hawke's Bay District Health Board Switchboard (06) 878 8109 and ask to be connected to an Endocrinologist for advice.

10 Investigations TSH

Quick info:

Thyroid function tests for investigation:

- asymptomatic patients:
  - do not test for thyroid dysfunction unless specifically indicated
- patients with symptoms or signs of thyroid dysfunction:
  - request TSH (thyroid stimulating hormone) Note; T3, T4 will automatically be added by laboratory if TSH abnormal

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  - during a non-thyroidal illness (sick euthyroid syndrome), there may be transient changes in TSH, FT4 and FT3. If possible defer thyroid function testing until this illness has resolved
- patients on medicines that can affect thyroid function:
  - Amiodarone - patients on long-term therapy should have six monthly TSH tests
  - Lithium - TSH annually
  - recent (within 3 months) large iodine dose e.g. xray contrast agent, inappropriate iodine supplements
- request both TSH and serum free thyroxine (FT4):
  - during pregnancy
  - if there is suspected non-adherence to the thyroid replacement regimen
  - when a patient is suspected of having pituitary failure. A low FT4 with an inappropriately normal TSH

Patients with normal TFT results, but who continue to experience symptoms, should be further investigated for non-thyroid causes (exclude pituitary failure with FT4).

References:

[1] BPAC - Management of thyroid dysfunction in adults bpac.org.nz/BPJ/2010/December/docs/bpj_33_thyroid_pages_22-32.pdf
[5] Thyroid manager

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collaborative clinical pathways

OURHEALTH HAWKE'S BAY Whakawateatia

Provenance Certificate Thyroid. August 2016

Overview

This document describes the provenance of Hawke's Bay's District Health Board's Thyroid Pathways August 2016. These were developed June 2016 – August 2016 and will be first published in September 2016. A review of the Pathway is due in September 2017.

The Collaborative Clinical Pathways programme is one initiative stemming from the *Transform and Sustain* agenda. The main aims of CCP are to:

- Identify opportunities to improve how health and disability care is planned and delivered within the district to improve patient access to a wider range of health services that are both closer to home and reduce avoidable hospital admissions.
- Provide health professionals throughout the Hawke's Bay district with best practice, evidence-based clinical pathways that are available at the point of care.

Outcomes we expect to achieve include faster access to definitive care, improved health equity and outcomes, better value from publically-funded resources, and better patient experience through clear expectations, improved access and greater health literacy. These outcomes are clearly aligned to the NZ healthcare *Triple Aim* and *Better, Sooner, More Convenient* policy directions.

Editorial methodology

This Pathway 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 was developed by individuals with front-line clinical experience (see Contributors section of this document) and has undergone consultation to gain feedback and input from the wider clinical community.

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.

An update to this Pathway is scheduled for 12 months after first publication. However, feedback is welcomed at any time, with important updates added at the earliest opportunity within the Map of Medicine publishing schedule.

References

This Pathway has been developed according to the Map of Medicine editorial methodology. Its content is based on high-quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience. Feedback on this Pathway was received from stakeholders during a consultation process.

1	BPJ Issue 33 - Management of thyroid dysfunction in adults - http://www.bpac.org.nz/BPJ/2010/December/docs/bpj_33_thyroid_pages_22-32.pdf BPAC New Zealand Ltd
2	Cox, S.C., Elson, M. S., & Conaglen, J.V. (2014) The management of Graves Disease in New Zealand 2014. Endocrinology Unit Waikato. 12th Annual Endocrinology Midlands Meeting, May15th 2015. Hamilton, New Zealand. (presentation).
3	JAU Tamatea, P Reid, MS Elston, JV Conaglen. Whakangungu Rākau: Incidence of thyrotoxicosis for Māori. 12th Annual Endocrinolgy Midlands Meeting. May 15th 2015. Hamilton (presentation)
4	Madariaga, A. G., Palacios, S. S., Guillen-Grima, F., & Galofre, J. C. (2014). The Incidence and Prevalence of Thyroid Dysfunction in Europe: A Meta- Analysis. Journal of Clinical Endocrinology & Metabolism, 99 (3), 923-931.
5	Thyroid disease manager - http://www.thyroidmanager.org Published by Endocrine Education Inc, South Dartmouth, MA 02748

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Disclaimers

Clinical Pathways Steering Group, Hawke's Bay DHB and Health Hawke's Bay – Te Oranga Hawke's Bay

It is not the function of the Clinical Pathways Steering Group, Hawke's Bay DHB and Health Hawke's Bay – Te Oranga Hawke's Bay 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.