Western Health

phn NORTH WESTERN MELBOURNE
An Australian Government Initiative

Thyroid Masterclass

Wednesday 24th June 2026

The content in this session is valid at date of presentation

Acknowledgement of Country

North Western Melbourne Primary Health Network would like to acknowledge the Traditional Custodians of the land on which our work takes place, the Wurundjeri Woi Wurrung People, the Boon Wurrung People and the Wathaurong People.

We pay respects to Elders past, present and emerging as well as pay respects to any Aboriginal and Torres Strait Islander people in the session with us today.

Housekeeping – Zoom webinar

All attendees are muted

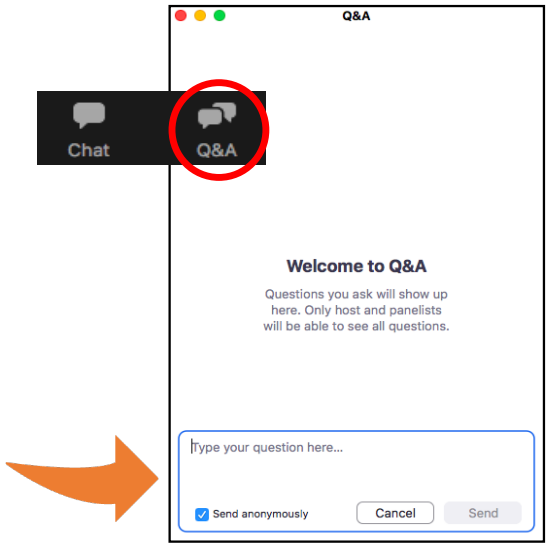
Please ask questions via the Q&A box only

- Q&A will be at the end of the presentation
- Questions will be asked anonymously to protect your privacy

This session is being recorded.

You will receive a link to this recording and copy of slides in post session correspondence.

Type your questions in the Q&A box.

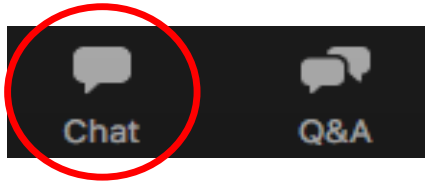


Housekeeping – Zoom webinar

Is your session name the same as your registration?

To ensure we can issue your certificates and CPD please ensure you have joined the session using the same name as your event registration (or phone number, if you have dialled in).

Not sure if your name matches, send a Chat message to 'NWMPHN Education' to identify yourself.

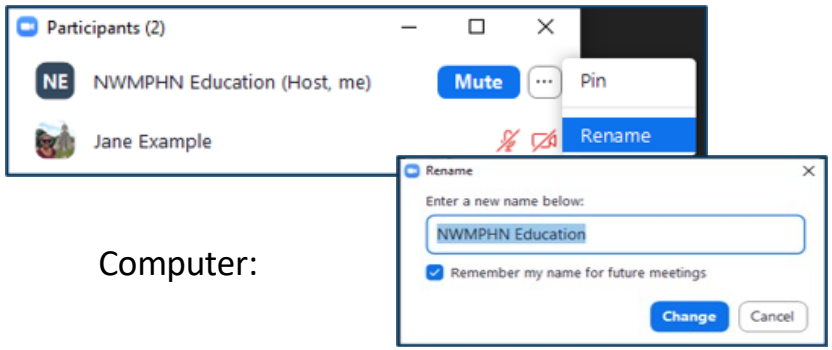


Housekeeping – Zoom webinar

How to rename yourself

1. Click on **Participants**
2. If using
   - App: click on your name
   - Computer: hover over your name and click the 3 dots
   - Mac: hover over your name and click More
3. Click on **Rename**
4. Enter the name you registered with and click **Done** / **Change** / **Rename**

Computer:



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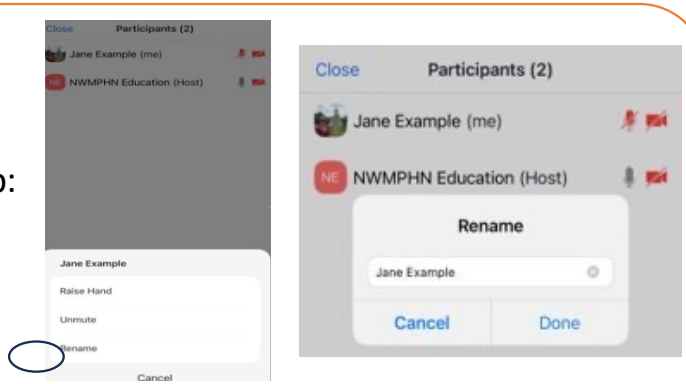


HealthPathways Melbourne

Welcome to HealthPathways Melbourne

HealthPathways : Clinical Management and Referral Resource

Localised Clinical Pathways
(Evidence-based guidance adapted for Melbourne clinicians)

Referral Information
(Clear referral instructions for local health services and hospitals)

Regular Updates
(Pathways reviewed and updated regularly by Clinical Editors)

CPD Hours
(Track and record CPD activities directly through Pathway page)

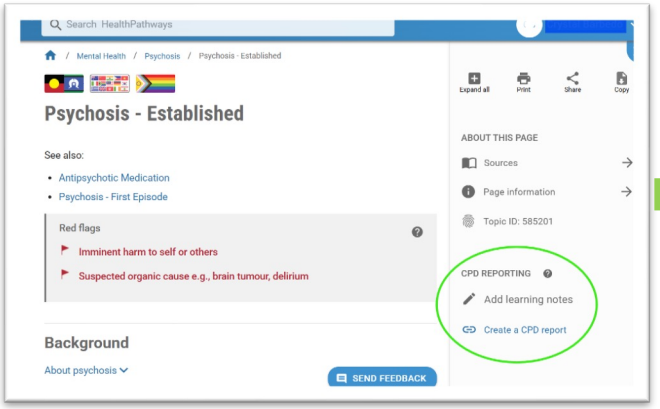
Collaborative Development
(Created by GPs, specialists, allied health and other health professionals)

Easy Access
(Web-based platform, mobile-friendly for point-of-care use)

Streamlined Workflow
(Quick navigation with Assessment, Management and Referral sections all in one place)

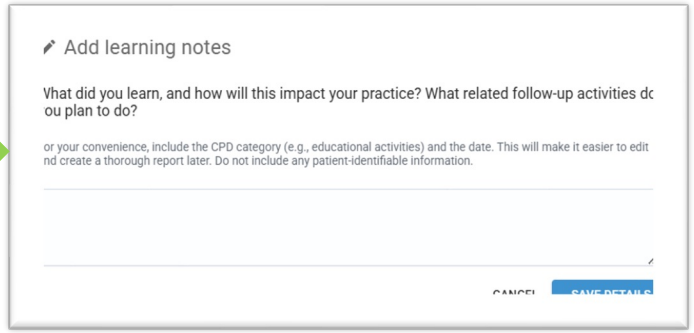
Free for Clinicians
(No cost access for all health professionals in North Western and Eastern Melbourne PHN catchments)

Record Your CPD Today: Start with HealthPathways



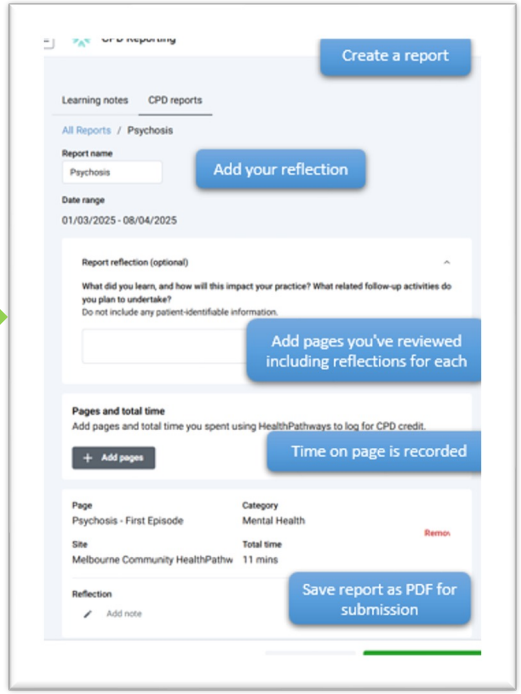
Step 1: Access a Pathway Page

- Navigate to a clinical pathway (e.g., *Psychosis – Established*).
- Click **“Add learning notes”** or **“Create a CPD report”** to begin tracking your CPD activity.



Step 2: Add Learning Notes

- Reflect on what you learned and how it will impact your practice.
- Include any planned follow-up activities.
- These notes are saved to your CPD record.



Step 3: Generate Your CPD Report

- Go to the **CPD Reporting** section.
- Add reflections, review pages, and confirm time spent.
- Export your report as a **PDF for submission**.

For further information on the CPD reporting tool, please see these videos:

- How to create a CPD report
- How to add learning notes

HealthPathways Melbourne Homepage

Search bar for quickly locating clinical pathways and conditions

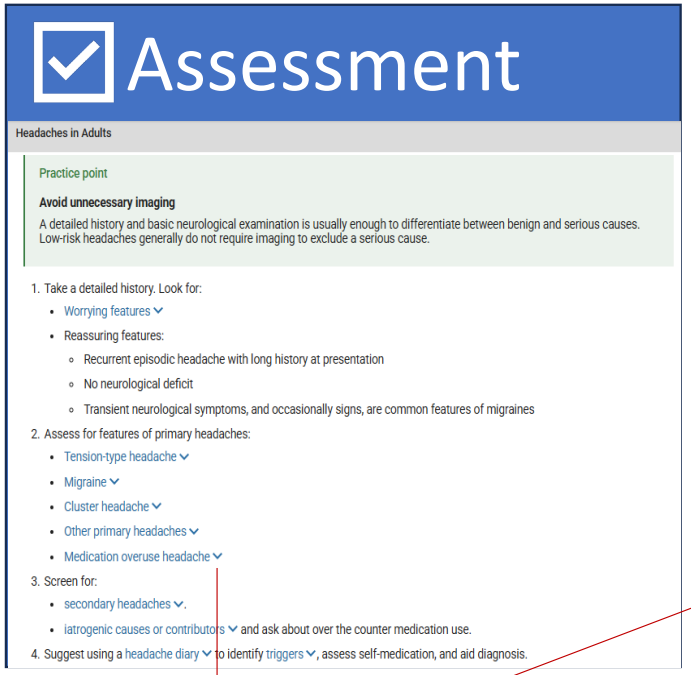
Browse clinical suites via left-hand menu, organised into easy to navigate categories

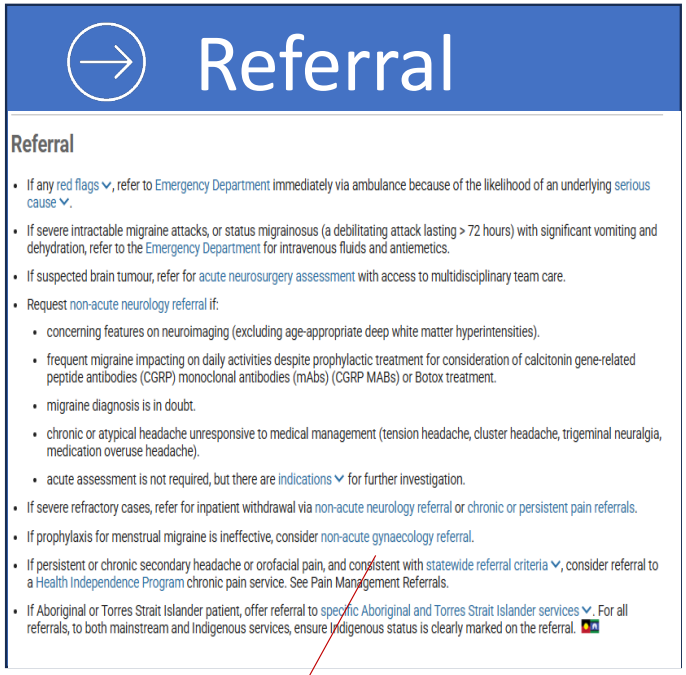
Essential quick-access links for latest updates, Pathway updates, clinical resources and MBS items

Click ‘Send Feedback’ to add comments and questions about this pathway.

Streamlined Navigation of HealthPathways for General Practice

All Sections in One Place: Assessment, Management, and Referral sections on a single page, making it easy for GPs to quickly navigate the entire clinical pathway without switching screens.





Click to Expand

Drop-down boxes appear throughout the pathway, click them to view supplementary information.

Click on the Links

Use the interactive links to open related pathways and resources

HealthPathways Melbourne

Stay Informed: Access Case Studies and Monthly Bulletin

Case Study

Real clinical scenarios for everyday GP practice

- Concise, practical case studies designed to reflect real presentation in General Practice.
- Includes management summaries, pathway links and local service consideration for quick navigation.
- Access all case studies here.

Monthly Bulletin

Monthly updates straight to your inbox

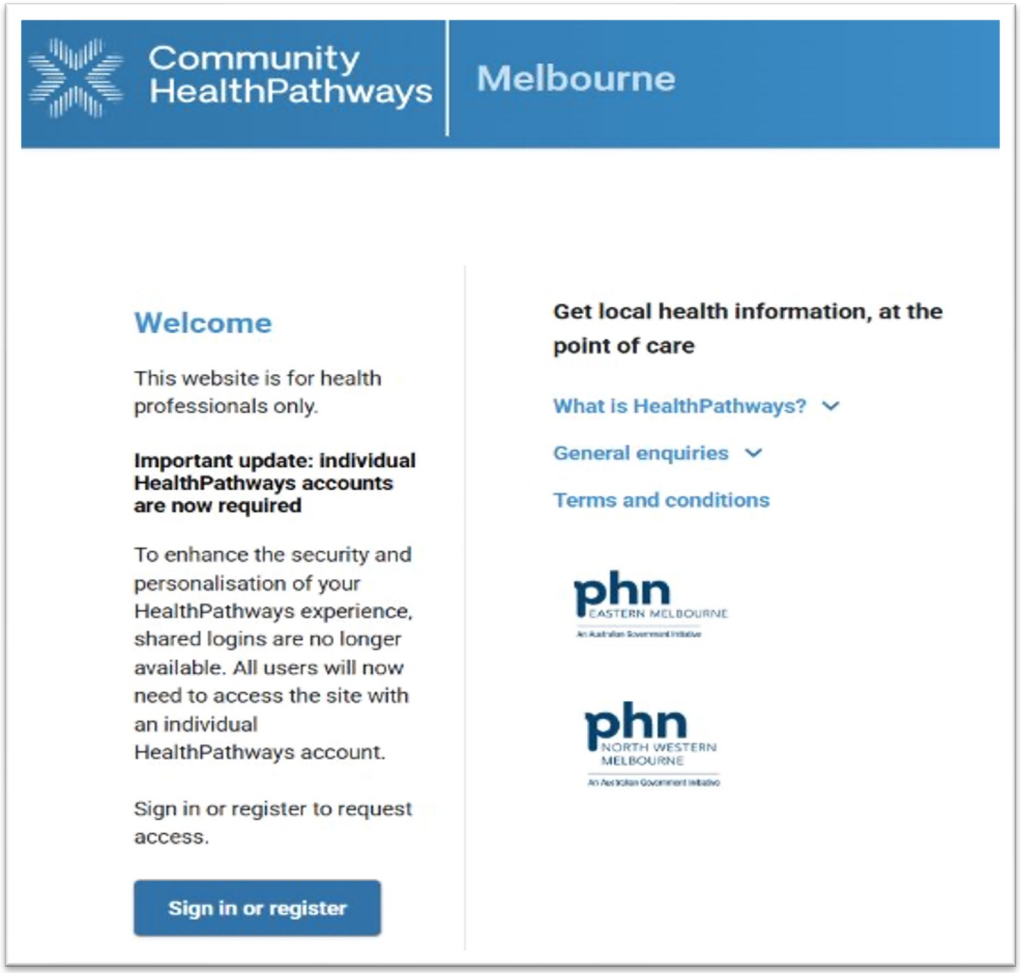
- Be the first to know about pathway updates, service changes , new case studies and employment opportunities

Subscribe to the HealthPathways Melbourne Monthly bulletin or contact us at info@healthpathwaysmelbourne.org.au

Access Now: Sign In or Scan to Register

Please click on the **Sign in or register** button to create your individual account or scan the QR code below.

If you have any questions, please email the team info@healthpathwaysmelbourne.org.au



Speakers

Dr I-Lynn Lee is an endocrinologist and Deputy Head of Western Health's Endocrinology and Diabetes Unit

Dr Chris Preston, Dr Annabel Jones and ***Dr Debbie Gordon*** are all endocrinologists, working within Western Health's Rapid Access Endocrinology Clinics

Dr Laura Chin-Lenn is a specialist endocrine, breast and general surgeon

Dr Russel Krawitz is a specialist endocrine and general surgeon

Thyroid Masterclass for the Primary Care Physician

North-West PHN, 24 June 2026

Dr I-Lynn Lee, Deputy Head of Unit, Endocrinology & Diabetes
Dr Debbie Gordon, Endocrinologist
Dr Annabel Jones, Endocrinologist
Dr Chris Preston, Endocrinologist
Dr Laura Chin-Lenn, Endocrine Surgeon
Dr Russel Krawitz, Endocrine Surgeon

Acknowledgement of Country

Western Health

Western Health acknowledges the Traditional Custodians of all the lands and waterways on which our staff, volunteers, consumers and caregivers come together.

As we work, learn and grow, we pay our deep respects to the Elders and Traditional Custodians past, present and emerging of the Wurundjeri Woi-Wurrung, Boon Wurrung, Bunurong and Wadawurrung Countries of the greater Kulin Nation.

We are committed to the healing of country, working towards equity in health outcomes, and the ongoing journey of reconciliation.

Western Health is committed to respectfully listening and learning from Aboriginal and Torres Strait Islander people and we are truly guided by the values of relationship, responsibility and respect.

Outline

- **1. Overview of common thyroid disorders**
- 2. Local burden of thyroid disease
- 3. Thyroid services at Western Health
- 4. Case presentations highlighting common management considerations
- 5. Management decisions in hyperthyroidism
- 6. Review of current thyroid disease guidelines
- 7. Thyroid disease in pregnancy
- 8. Surgical considerations in management
- 9. How and when to refer?
- 10. Q+A session

Thyroid Disorders

Western Health

- Hyperthyroidism / Thyrotoxicosis
  - Graves' disease, toxic nodule and toxic MNG, thyroiditis, gestational thyrotoxicosis
  - Iodine-induced, Amiodarone, factitious thyroxine, TSHoma (rare!)
- Hypothyroidism
  - Hashimoto's, post-RAI or thyroidectomy, overt and subclinical hypothyroidism of pregnancy
- Thyroid Nodules
  - Clinically evident vs US detectable, solitary vs MNG, "hot" vs "cold" on uptake scan
- Thyroid Cancer
  - Papillary, follicular, Hurthle cell… poorly differentiated, medullary, anaplastic

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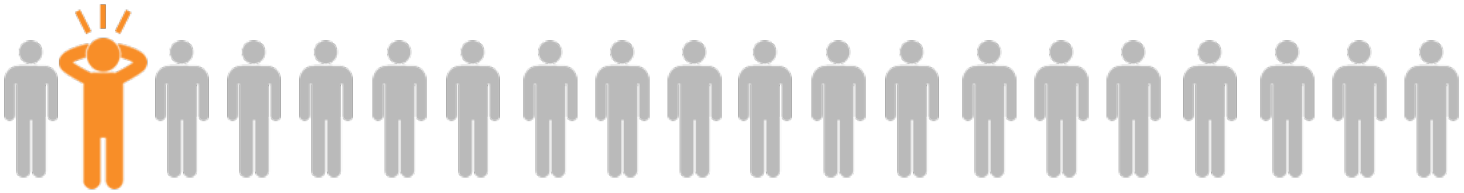
Thyroid Disorders: Burden of Disease

Western Health



- 1 in 20 people will experience some form of thyroid dysfunction in their lifetime
- 60,000 new cases are diagnosed each year
- Over 1 million Australians are living with an undiagnosed thyroid disorder
- Women are 10x more likely to be diagnosed

Hypothyroidism

- 3% prevalence = Most common thyroid disorder in Australia
  - Women > Men
  - Age 60+ years
- Chronic autoimmune (Hashimoto's) thyroiditis - most common cause
- Congenital (thyroid agenesis or dysgenesis)
- Post thyroidectomy or RAI for thyroid cancer or thyrotoxicosis
- Delayed onset following neck irradiation

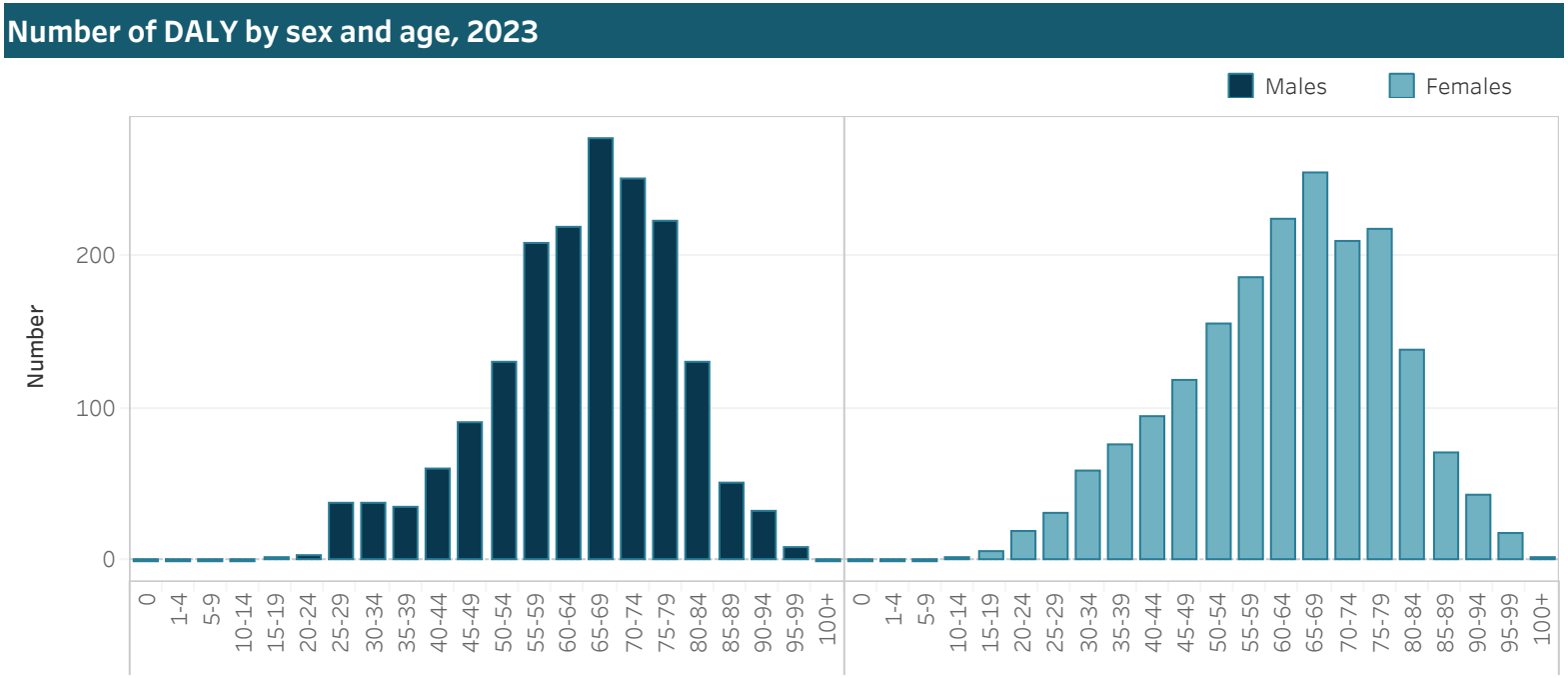
Hyperthyroidism / Thyrotoxicosis

Western Health

- Graves' disease = most common cause
  - 0.5% prevalence, 2% lifetime risk
  - 8:1 female preponderance
- Toxic nodule and toxic MNG
- Subacute and lymphocytic thyroiditis
- Gestational - needs to be differentiated from new onset Graves' disease
- Iodine (Jod-Basedow), Amiodarone, factitious, TSHoma

Thyroid Cancer

- 0.14 per 1,000 population in Australia



- Rates of detection slightly increasing but outcomes largely stable

AIHW 2023

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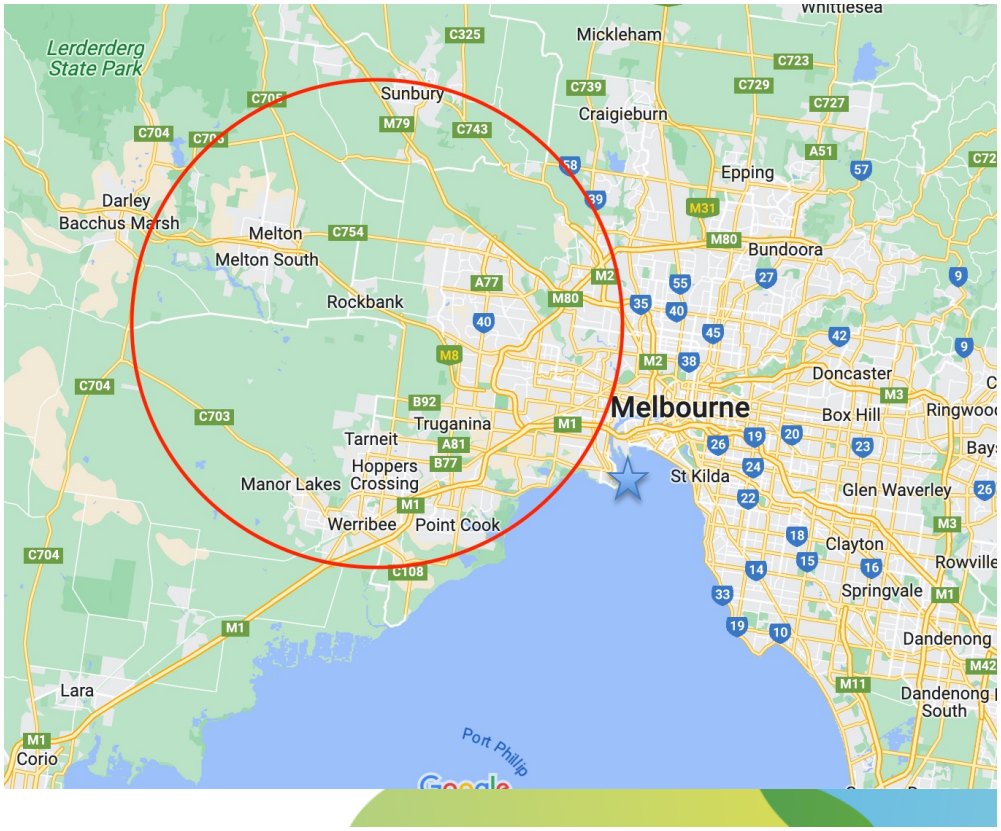
Thyroid Services at Western Health

Western Health - Victoria

- Large catchment servicing Melbourne's West
- Population >900,000
- Socioeconomically demanding, culturally diverse



Thyroid Services

- Endocrinology
- General and Endocrine Surgery
- Radiology
- Nuclear Medicine

Thyroid Services at Western Health

Endocrinology

• Rapid Access Endocrinology Clinic	Monday AM and Thursday PM	Footscray
• General Endocrinology Clinic	Friday AM	Sunshine
• Endocrinology & Diabetes Clinic	Monday and Thursday AM and PM	Melton

General and Endocrine Surgery

• GES Surgical Clinic	Monday AM	Footscray
• GES Surgical Theatre Lists	Monday PM + other days rotating	Footscray

Radiology and Nuclear Medicine

• Diagnostic services:	Ultrasound, CT, Thyroid uptake scanning	Footscray & Sunshine
• Therapeutic services:	Radioactive iodine	Footscray & Sunshine

Thyroid Cancer Services at Western Health

Western Health

- Multi-disciplinary service
  - Endocrinology, Endocrine Surgery, Radiology, Nuclear Medicine, Anatomical Pathology
  - Medical Oncology and other specialist surgical input as required

- Monthly multi-disciplinary meetings
  - Review of imaging and histopathology

- Co-ordinated care of all patients with thyroid cancer
  - Pre-operative optimisation and surgical planning
  - Post-operative surveillance and thyroxine management
  - Referral for radioactive iodine (RAI)

Coming soon…

RAI @ WH

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Case 1: Ms HT

- 22F p/w unintentional **weight gain** and **fatigue**

- Past History
  - Asthma
  - Vitiligo
  - PMOS
- Medications
  - COCP
  - Metformin XR 500mg
  - Salbutamol PRN
- Social History
  - Lives with partner
  - Studying engineering
  - Never-smoker, social EtOH
- Examination
  - Wt 82kg, HR 60
  - Diffuse thyroid enlargement
  - Mild proximal myopathy

Case 1: Ms HT

- 22F p/w unintentional **weight gain** and **fatigue**

- Thyroid function tests
  - TSH **28.0** (0.50-4.00)
  - FT4 **5.2** (10.0-23.0)
  - FT3 4.0 (3.5-6.5)
- Thyroid autoantibodies
  - TSH-R Ab ---- (<0.55)
  - TPO Ab **>400** (<13.8)
  - Tg Ab **135.0** (<4.5)
- Imaging
  - Thyroid US Small goitre
  - Thyroid uptake scan Not performed
- Diagnosis
  - Hashimoto's thyroiditis
- Treatment
  - Levothyroxine

Case 2: Mr GD

- 38M p/w unintentional **weight loss** and **fatigue**

- Past History
  - T2DM
  - Fatty liver disease
  - Hypertension

- Medications
  - Metformin XR 1g
  - Dapagliflozin 10mg
  - Perindopril 5mg

- Social History
  - Lives with wife
  - Truck driver
  - Ex-smoker, social EtOH

- Examination
  - Wt 68kg, HR 100
  - No goitre or eye signs
  - Proximal myopathy with brisk reflexes

Case 2: Mr GD

- 38M p/w unintentional **weight loss** and **fatigue**

- Thyroid function tests
  - TSH **<0.01** (0.50-4.00)
  - FT4 **48.2** (10.0-23.0)
  - FT3 **16.8** (3.5-6.5)
- Thyroid autoantibodies
  - TSH-R Ab **3.92** (<0.55)
  - TPO Ab ---- (<13.8)
  - Tg Ab ---- (<4.5)
- Imaging
  - Thyroid US Not performed
  - Thyroid uptake scan Not performed
- Diagnosis
  - Graves' disease
- Treatment
  - Carbimazole + Propranolol

Case 3: Mrs TN

- 48F p/w increasing **fatigue** and **palpitations**

- Past History
  - Obesity
  - Anxiety and Depression
  - Perimenopause

- Medications
  - Escitalopram 10mg
  - Semaglutide 1.7mg (non-PBS)
  - Diazepam PRN

- Social History
  - Divorced, lives alone
  - Works in administration
  - Ex-smoker, no EtOH

- Examination
  - Wt 72kg, HR 110
  - Fine tremor, no goitre or eye signs
  - Proximal myopathy with brisk reflexes

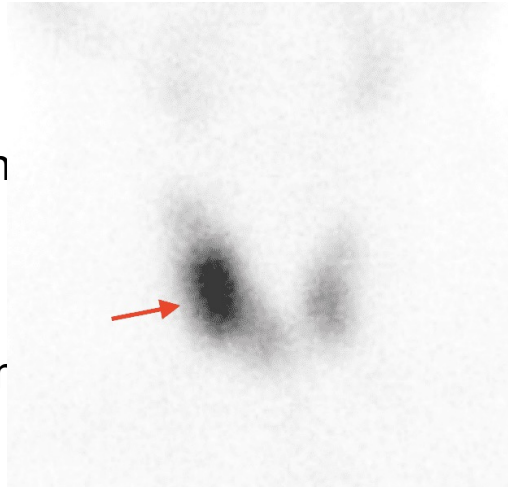
Case 3: Mrs TN

- 48F p/w increasing **fatigue** and **palpitations**

- Thyroid function tests
  - TSH **<0.01** (0.50-4.00)
  - FT4 **26.8** (10.0-23.0)
  - FT3 **10.5** (3.5-6.5)

- Thyroid autoantibodies
  - TSH-R Ab 0.12 (<0.55)
  - TPO Ab ---- (<13.8)
  - Tg Ab ---- (<4.5)

- Imaging
  - Thyroid US Not performed
  - Thyroid uptake scan 1x “hot” nodule



- Diagnosis
  - Toxic n noma

- Treatment
  - Carbim AI

Case 4: Ms MN

- 52F p/w **neck mass** and unintentional **weight loss**

- Past History
  - Overweight
  - Hypertension
  - GORD
- Medications
  - Amlodipine 10mg
  - Perindopril 5mg
  - Esomeprazole 20mg
- Social History
  - Single, lives alone
  - School vice principal
  - Current smoker, no EtOH
- Examination
  - Wt 72kg, HR 90
  - Goitre with multiple palpable nodules
  - No myopathy, normal reflexes

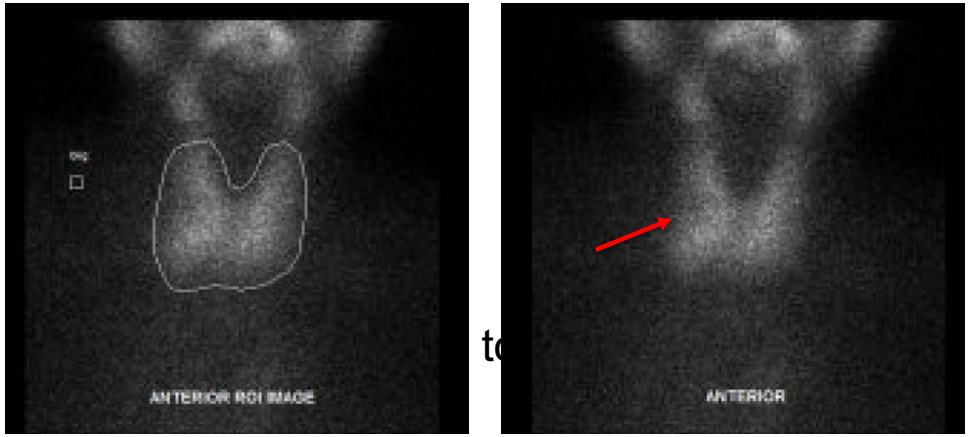
Case 4: Ms MN

- 52F p/w **neck mass** and unintentional **weight loss**

- Thyroid function tests
  - TSH **<0.01** (0.50-4.00)
  - FT4 **24.6** (10.0-23.0)
  - FT3 **7.2** (3.5-6.5)

- Thyroid autoantibodies
  - TSH-R Ab 0.40 (<0.55)
  - TPO Ab ---- (<13.8)
  - Tg Ab ---- (<4.5)

- Imaging
  - Thyroid US MNG
  - Thyroid uptake scan 1x “cold” nodule



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Diagnosis of Hyperthyroidism - moved away from nuclear scans

- Suppressed TSH?
  - Check T3 and T4- differentiate subclinical hyperthyroid vs overt hyperthyroid
  - T3:T4 > 0.3 or either increased- Graves'
- Clinical exam
  - Graves' / nodular disease / thyroiditis
- 2 antibody tests against TSH receptor
  - TBI thyrotropin binding inhibitory immunoglobulin "TRAb" – 97-99% sensitive** for Graves'
  - TSI bioassay (subtype of TRAb) – 95% sensitive
- If Ab tests unhelpful → Tc uptake scan

Additional Tests

- Thyroid ultrasound
  - Increased vascularity
  - Nodular disease
- Bloods
  - FBC: microcytosis
  - LFT: transaminitis, increased BR, increased ALP
  - Hypercalcaemia
- CT or MRI for orbitopathy

Considerations for discussion

Western Health

- Medical treatment
  - Safety and side effects
  - Conception, pregnancy and breastfeeding
  - Relapse risk and burden of follow-up
- Surgical treatment
  - Surgical expertise, anaesthetic risk, surgical complication risk
- RAI ablation
  - Preparation, isolation, conception / breastfeeding
- LESSER OF 2 EVILS?? Hyperthyroid or hypothyroid

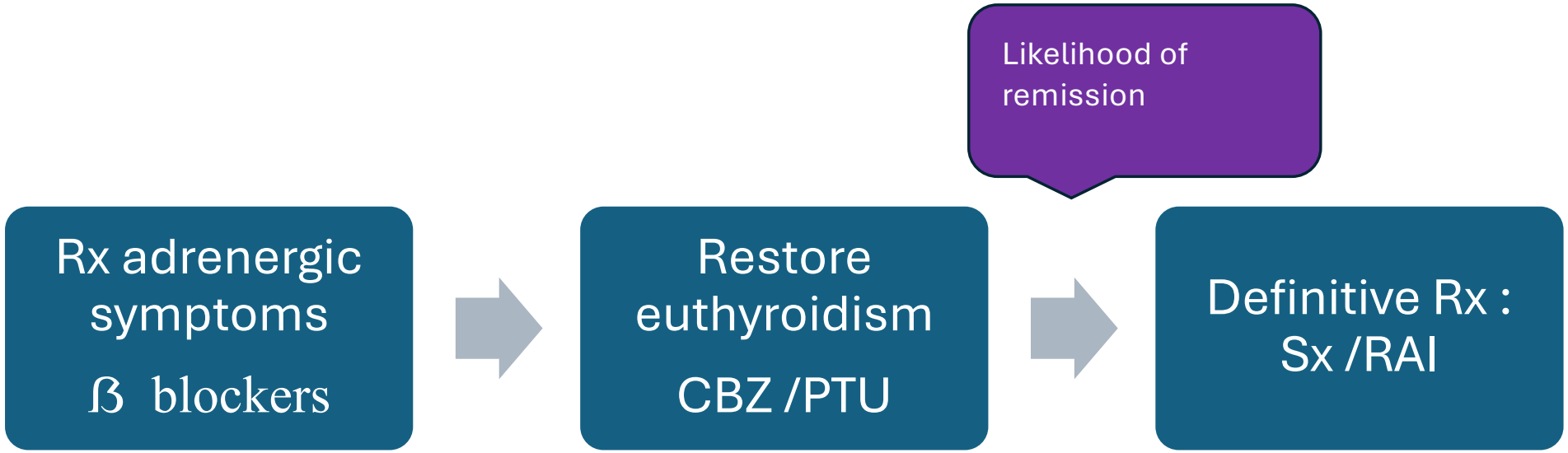
Determining the best treatment – what the Dr thinks

- Consider age and general health of the patient
- Desire for pregnancy
- Underlying Aetiology of hyperthyroidism
- Severity of the hyperthyroidism
- Contraindications to any particular Rx modality
- Patient preference

Determining the best treatment – what the patient thinks

- Cost of specialist appointments, investigations and medications
- Side effects / safety
- Chance of “cure” (remission)

Management approach



Remission in Graves' Disease

Western Health

- Historically, Rx wth thionamides continued for 12-18 months
  - Unless poor clinical signs of remission / another reason for definitive Rx

- Likelihood that remission is poor:
  1. Clinical features: large goitre, high TRAb, high T4
  2. Recurrence of disease
  3. Persistence of TRAb positivity after period of medical Rx
  4. Postpartum period

Ross, ATA Thyroid Guidelines, 2016

Relapse rate 1 yr after thionamide cessation

- TRAb >4.4 = 85% relapse rate after 1 year
- TRAb 0.9 - 4.4 = 53% relapse rate after 1 year
- TRAb <0.9 = No relapse

Long term thionamide safety

- For every year of Rx (after 24 months), 16% chance of remission
  - 3rd year 16% higher chance
  - 5th year 48% higher chance
  - 7th year 70% higher chance of remaining in remission

- Overall adverse side effect rate 19%, majority were minor issues:
  - Rash, GIT intolerance, arthralgia

- Only 1.5% people had serious side effects

Shah, Endocrine Practice, 2025

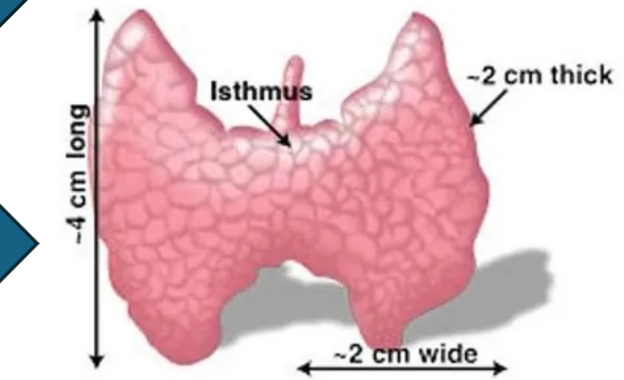
Side effects of thionamides

	carbimazole	Propylthiouracil
Daily dose	10-30mg (45mg)	100-450mg
Onset of action	2-3 hours	90 mins
Adverse side effects (2-8 weeks)	Rash/pruritis	ANA / ANCA vasculitis
	Agranulocytosis (0.5%)	Fatigue
	Hepatotoxicity (<0.1%) +	Hepatotoxicity+++

Thionamides
Prevent iodine uptake
Prevent thyroid hormone formation
PTU prevents T4→T3 conversion

PTU

CBZ and PTU



Abassi, Endoc and Met, 2025

Current approach

- 1. Assess patient clinically
- 2. Consider : eye disease (Graves'), pregnancy, other illness
- 3. Patient preference

- Treat for 12-18 months, and assess for remission: TRAb

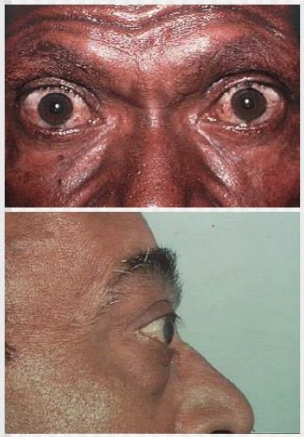
- If TRAb +ve, continue on medical Rx for longer
- If TRAb -ve, can cease Rx, if relapse occurs → lifelong thionamides / RAI / Sx

Shah, Endocrine Practice, 2025

Thyroid eye disease

- Graves' eye disease management:
  - Smoking cessation
  - Avoid irritation: sunlight, computer screens
  - Lubrication: tears naturale / methylcellulose
  - Elevation of bed
  - Selenium supplementation 100mcg daily
  - Know when to refer
    - Monoclonal antibodies (IGF-1 r: teprotumumab)
    - Selenium

Graves Disease Eye Signs



N - no signs or symptoms
O – only signs (lid retraction or lag) no symptoms
S – soft tissue involvement (peri-orbital oedema)
P – proptosis (>22 mm)(Hertl's test)
E – extra ocular muscle involvement (diplopia)
C – corneal involvement (keratitis)
S – sight loss (compression of the optic nerve)

Activity score > 3/7

1. Retrobulbar eye pain
2. Pain on upward/ downward gaze
3. Redness eyelids
4. Rednes conjunctive
5. Oedema caruncle or plica
6. Oedema eyelids
7. Oedema conjunctiva (chemosis)

Wiersinga et al

Selenium supplementation in hyperthyroidism

- 2 forms:
  - Selenomethionine leafy green plants
  - Selenocysteine animal products

- Selenium supplementation (2 brazil nuts / 100mg daily 3-6 months) :
  - Reduce thyroid autoantibodies
  - Improve thyroid metabolism
  - Prevent the development / worsening of autoimmune thyroid eye disease

EUGOGO clinical guidelines, 2018

Leaky gut hypothesis – autoimmune and nodular disease

- ? ??????????????

- Hypothesis that certain foods, like carbohydrates, induce bacteria in the gut to form more pro-inflammatory molecules that trigger autoimmune disease, and by avoiding carbohydrates or taking in probiotics, we could treat autoimmune disease

Knezevic, Nutrients, 2020

To summarise – the latest updates in hyperthyroidism

Western Health

- Diagnosis usually made clinically and with antibody tests
- TRAb can be used to review success of treatment and remission rates
- Definitive treatment with RAI / Sx may not be needed
- Long term Mx with thionamides safer than previously thought

- Thyroid eye disease: IGF1 receptor monoclonal Ab, 1st line Rx

- RAI is associated with hypocalcaemia in the short term and
  1' hyperparathyroidism later on

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Current Guidelines – HypOthyroidism

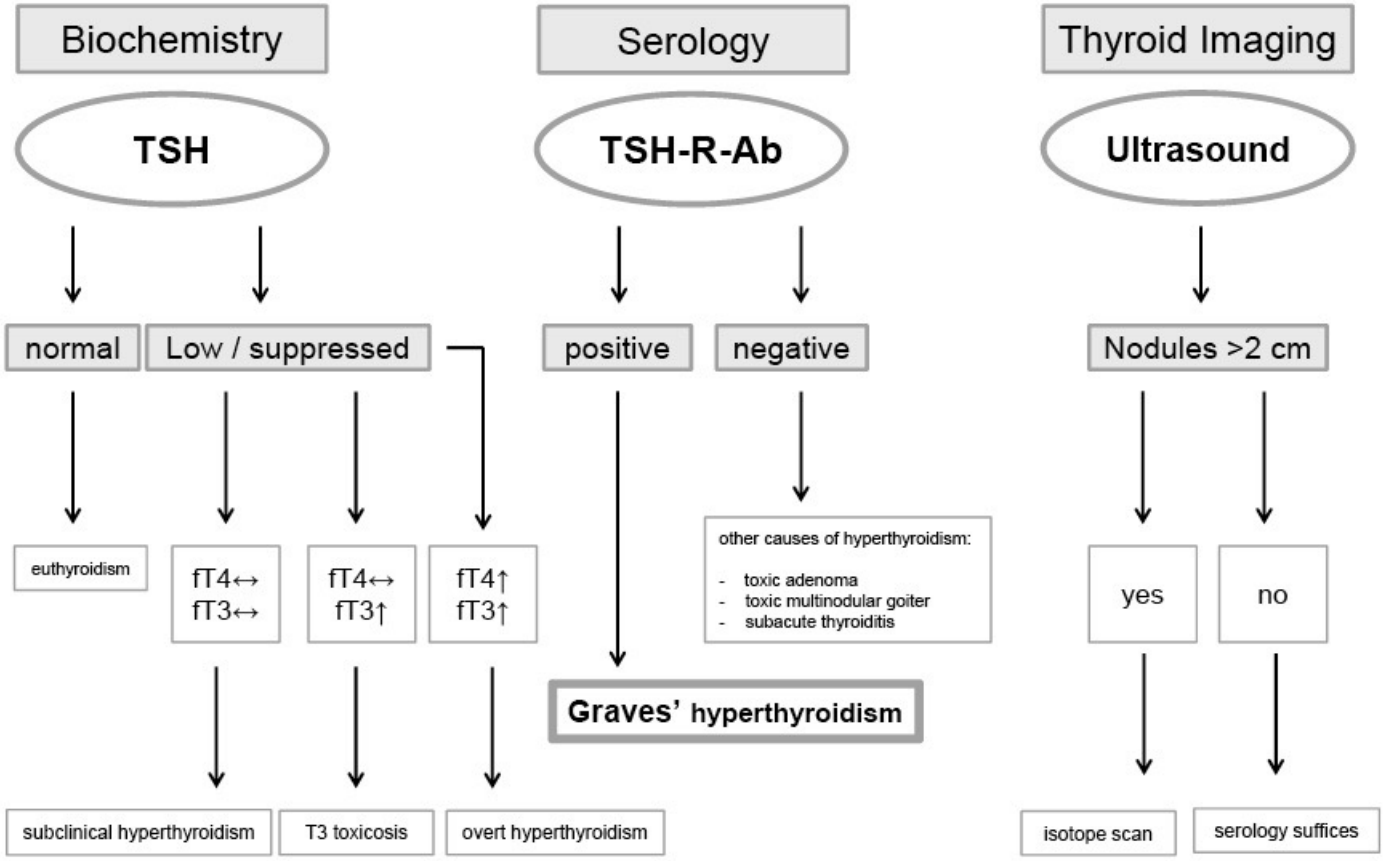
Western Health

- Indications for treatment
  - Overt primary hypothyroidism
  - Subclinical hypothyroidism – if symptomatic or TSH >10

- Initiation of thyroxine
  - Full replacement: levothyroxine 1.6ug/kg (to the nearest 25ug), orally, daily
  - Partial replacement: levothyroxine 25 to 50ug, orally, daily

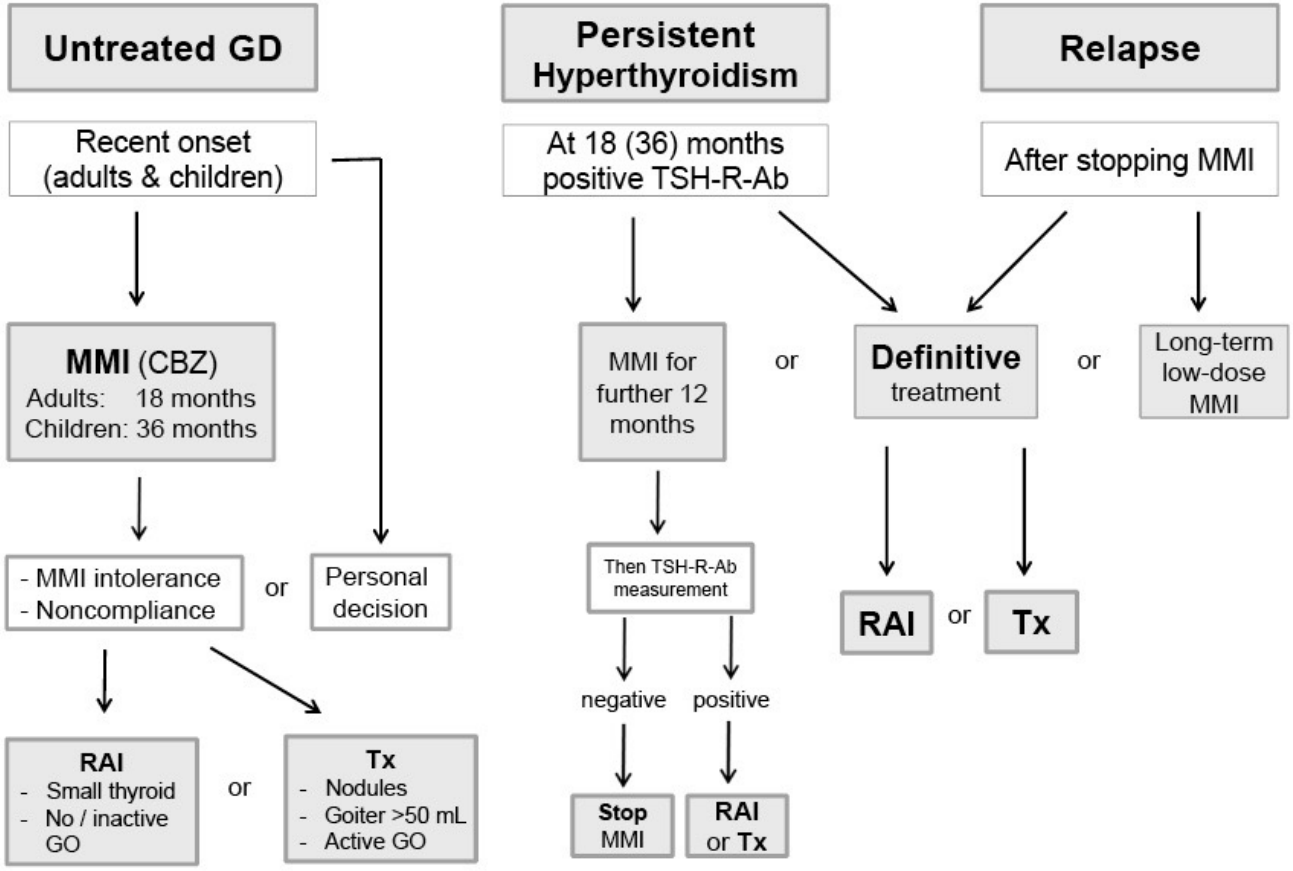
- Target TSH and dose adjustments
  - Aim TSH 0.5-2.5 (<60 years) or 1.0-5.0 (60+ years) and adjust every 4 to 8 weeks
  - Caution in elderly and heart failure; do not use TSH for dosing in central hypothyroidism

Current Guidelines – HypERthyroidism



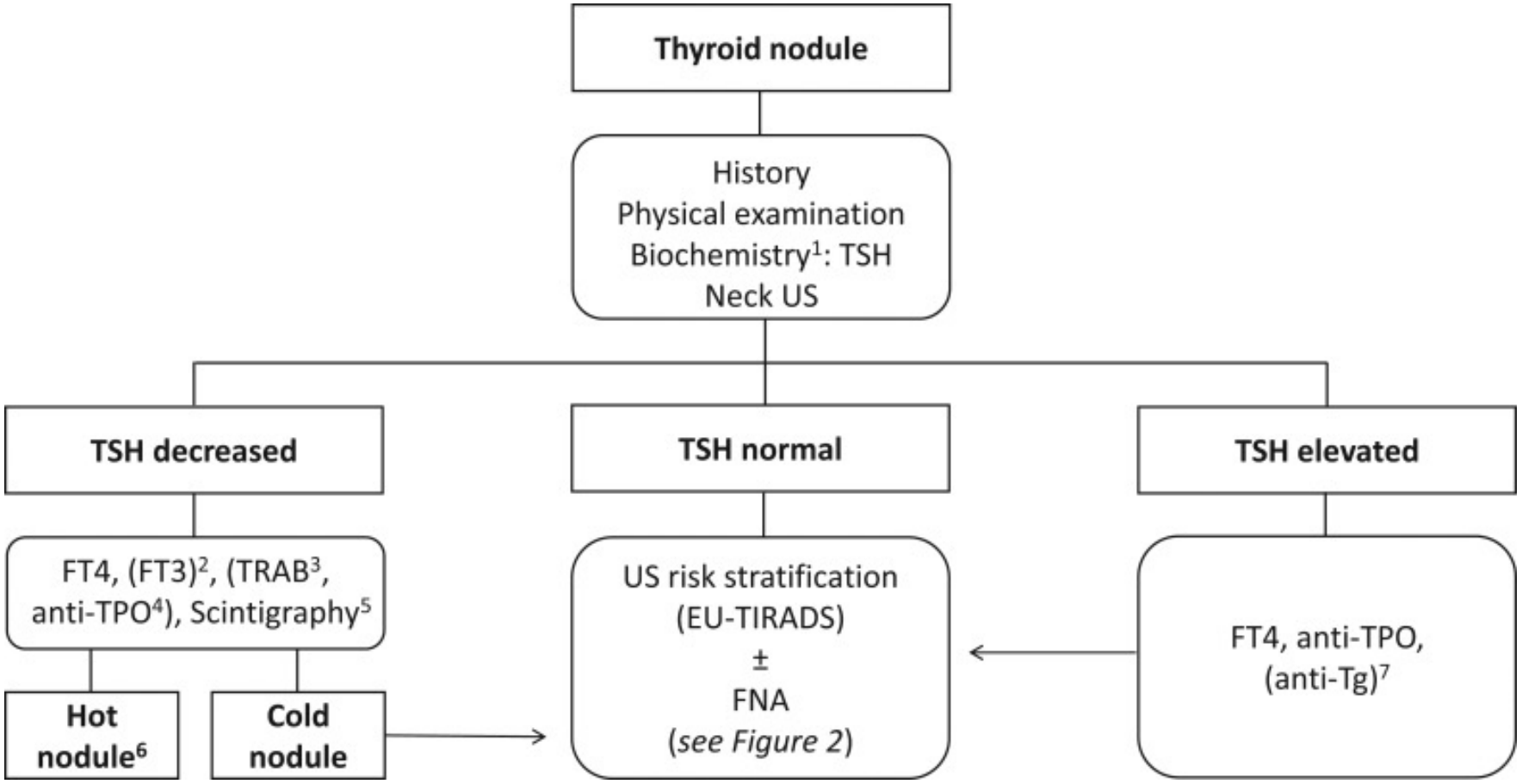
Eur Thyroid J. 2018 *7*(4), 167-186

Current Guidelines – HypERthyroidism



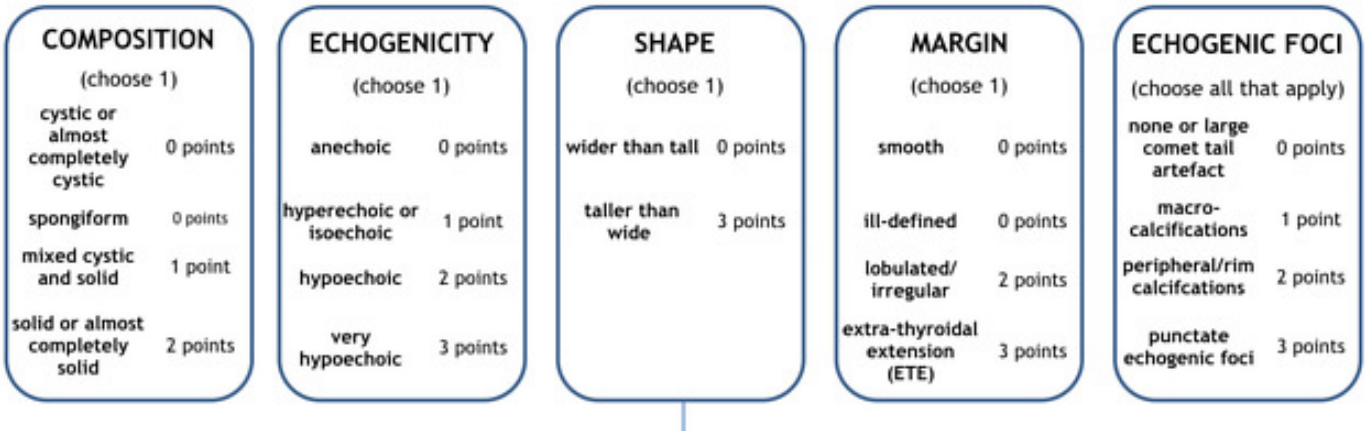
Eur Thyroid J. 2018 *7*(4), 167-186

Current Guidelines – Thyroid Nodules



Eur Thyroid J. 2023 Aug 14;12(5):e230067

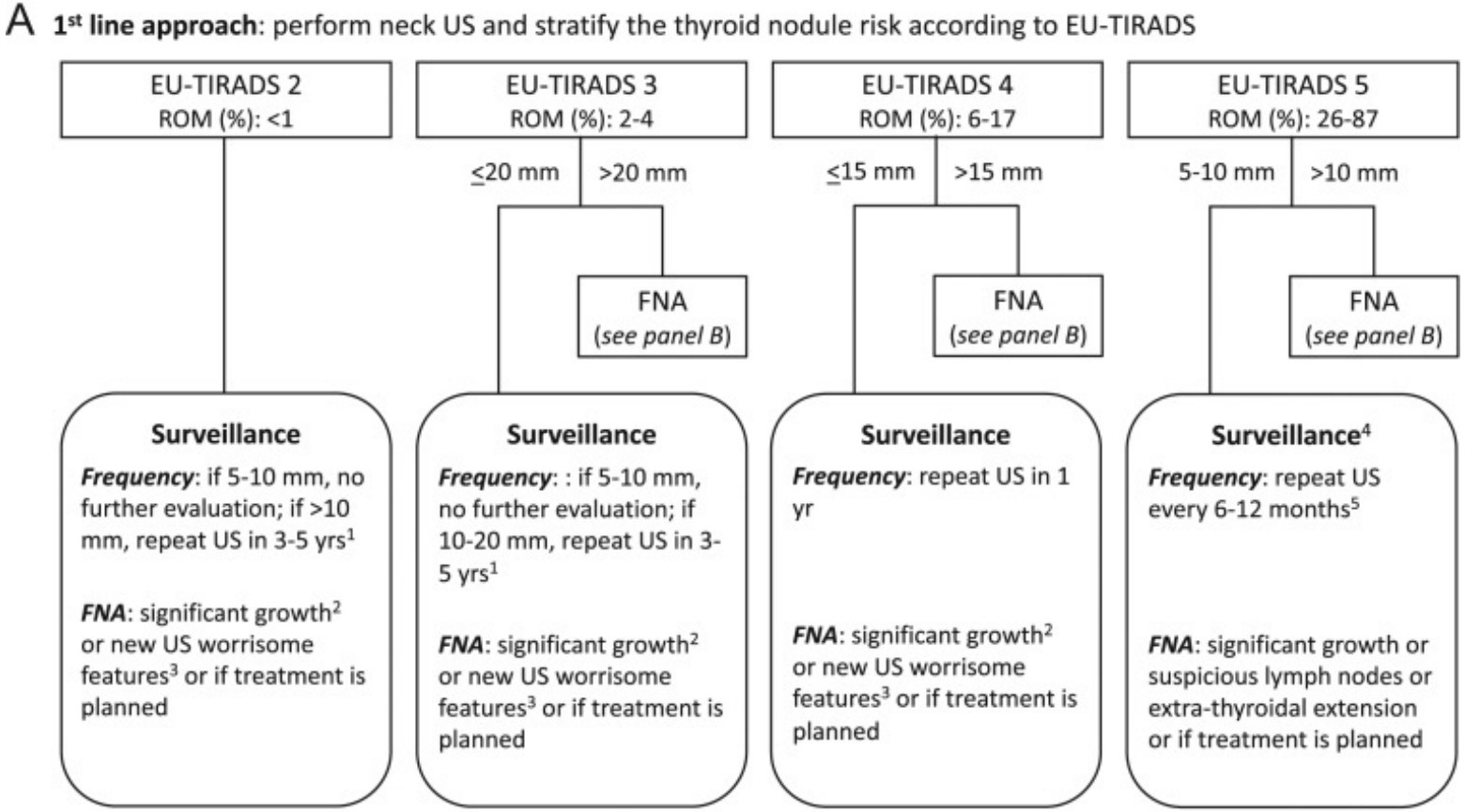
Current Guidelines – Thyroid Nodules



0 points	2 points	3 points	4-6 points	≥7 points
TR1 benign	TR2 not suspicious	TR3 mildly suspicious	TR4 moderately suspicious	TR5 highly suspicious
no FNA	no FNA	≥ 1.5 cm follow up ≥ 2.5 cm FNA	≥ 1.0 cm follow up ≥ 1.5 cm FNA	≥ 0.5 cm follow up ≥ 1.0 cm FNA

ACR White Paper 2017

Current Guidelines – Thyroid Nodules



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Current Guidelines – Thyroid Nodules

Western Health

B **2st line approach**: perform FNA cytology

BETHESDA I ROM (%): 1-4	BETHESDA II ROM (%): <3	BETHESDA III ROM (%): 5-15	BETHESDA IV ROM (%): 15-30	BETHESDA V ROM (%): 60-75	BETHESDA VI ROM (%): 97-99
EU-TIRADS 3 (*>20 mm*) ***Repeat FNA:***[1] *if still Bethesda class I, consider* ***CNB****.* **EU-TIRADS 4 (*>15 mm*) and 5 (*>10 mm*)** ***Repeat FNA:***[1] *if still Bethesda class I, consider* ***CNB*** *or molecular testing (if available and sufficient material).*	**EU-TIRADS 3 (*>20 mm*) and 4 (*>15 mm*)** **Repeat US** in 3-5 yrs[2] ***Repeat FNA***[1,3] *if* significant growth[4] or new worrisome features **EU-TIRADS 5 (*>10 mm*)** ***Repeat FNA***[1,5] *(imaging and pathology not concordant)*	**EU-TIRADS 3 (*>10 mm*)** ***Repeat FNA:***[1] *if still Bethesda class III, repeat US within 1 yr or consider molecular testing (if available) or offer surgery* **EU-TIRADS 4 and 5 (*>10 mm*)** ***Repeat FNA:***[1] *if still Bethesda class III, offer surgery, or surveillance, or molecular testing (if available)*	**EU-TIRADS 3, 4 and 5 (*>10 mm*)** *Offer surgery or molecular testing (if available)*[6]	**EU-TIRADS 3, 4 and 5 (*>10 mm*)** *Recommend:* ▪ *Surgery*[7]	

Eur Thyroid J. 2023 Aug 14;12(5):e230067

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Thyroid Physiology in Pregnancy

Western Health

- 50% increase in iodine requirement. WHO recommends 250 mcg/d iodine intake in pregnant and lactating women (150mcg/d supplement recommended preconception and during pregnancy)
- Production of T4 and T3 increases by nearly 50%
- Placental hCG stimulates thyroid hormone secretion -> decreased TSH (TSH <0.1 in 5% women by 11 weeks, normalises as beta-hCG falls in second and third trimesters)
- Increased thyroid binding globulin levels due to increased oestrogen
- Fetal thyroid starts functioning at 10-12 weeks gestation but does not fully mature until 3rd trimester
- Fetus is dependent on maternal T4 until this stage (only maternal T4 is passed through the placenta to the foetus, not T3)

TSH reference ranges in pregnancy

Western Health

Gestation	Thyroid stimulating hormone (mIU/L)
First trimester	0.1–2.5
Second trimester	0.2–3.0
Third trimester	0.3–3.0

Note that individual laboratories may have slightly different pregnancy-specific ranges and it is important to confirm ranges with your local pathologist.

Screening for thyroid dysfunction in Pregnancy

Western Health

- Prior history of thyroid disease/family history thyroid disease
- Women with a goitre
- Women with thyroid autoantibodies
- Women with symptoms
- Women with type 1 diabetes / other autoimmune disorders
- Women with infertility / recurrent miscarriage
- Women with previous head or neck irradiation
- Women from an area with moderate to severe iodine insufficiency
- Hyperemesis gravidarum

Thyroid auto-antibodies

Western Health

- Anti-thyroid peroxidase or anti-thyroglobulin antibodies are present in 2-17% of pregnant women
- Women with positive TPO antibody are more likely to develop elevated TSH during pregnancy
- Positive thyroid antibodies is associated with increased risk of pregnancy loss, and subfertility
- TSH +/- TPO Ab should be tested in women with recurrent miscarriage or subfertility. **No indication for universal screening**
- Studies using LT4 in euthyroid women with positive TPO-Ab have ***not*** definitively shown a benefit, therefore this is not routinely recommended

Overt vs subclinical hypothyroidism in pregnancy

Western Health

Overt hypothyroidism	Subclinical hypothyroidism
Elevated TSH, reduced fT4; or TSH >10	Elevated TSH, normal fT4
0.3-0.5% screened pregnant women	2.0-2.4% of screened pregnant women
Associated with anovulation, first trimester miscarriage, pre-eclampsia, placental abruption, preterm delivery, low birth weight, postpartum haemorrhage, perinatal morbidity and mortality, neuropsychological and cognitive impairment in the child	Link between subclinical hypothyroidism and adverse neurocognitive outcomes and pregnancy outcomes unclear No clear evidence that women with TSH < 4 are at increased risk of miscarriage
Commence thyroxine ~1.6 mcg/kg/day, recheck in 4-6 weeks and aim TSH <2.5 mIU/L	**Current Victorian consensus guidelines recommend commencement of levothyroxine if TSH >4**

Subclinical hypothyroidism and TSH targets

Western Health

- Where possible, utilise trimester and assay-specific TSH reference ranges
- Utilise TSH >4mIU/L to initiate treatment (irrespective of antibody status)
- Starting thyroxine dose 50mcg daily with TSH aim 0.1-2.5mIu/L in first trimester (or 0.5-2.5mIU/L)
- Generally ceased post delivery (with repeat TFT at 6/52 post partum)

Thyroxine replacement during pregnancy

Western Health

- For women on thyroxine, monitor TFTs every ~6 weeks until mid-gestation and then at 26-32 weeks
- 50-85% LT4-treated hypothyroid women need increases in thyroxine dose during pregnancy
- Increased thyroxine requirements occur from as early as 4-6 weeks until 16-20 weeks and plateau thereafter until delivery

Pre-existing hypothyroidism

- For those with pre-existing hypothyroidism, **increase LT4 dose by ~30%** when suspected pregnancy occurs and optimise TSH pre-pregnancy to <2.5 mIU/L
- Post delivery reduce LT4 to pre-pregnancy dose and check TFTs 6 weeks post partum

Case 1

- 37F G5P3
- Postpartum thyroiditis in all prior pregnancies – hyperthyroid followed by hypothyroid phase requiring thyroxine ~6-12 months
- October 2025: TSH 0.01, FT4 18.6, FT3 6.2, TPO Ab 47 (H)
- November 2025: TSH 31, FT4 8.4, FT3 3.8
- Commenced LT4 100mcg daily -> 9/1/26: TSH 3.5, FT4 12.6, FT3 4.9
- Unplanned pregnancy – LT4 increased to 100mcg 5/7 + 200mcg 2/7
- March 2026: TSH 1.89, FT4 17.8, FT3 4.8
- Remained euthyroid with TSH <2.5 and 6 weekly monitoring in pregnancy
- Returned to LT4 100mcg daily post partum

Post partum thyroiditis

- Incidence ~5-10% of pregnant women
- Hypothyroidism or biphasic presentation of hyperthyroidism followed by hypothyroidism
- Higher risk: TPO Ab positive, previous post-partum thyroiditis, concurrent autoimmune conditions
- Hyperthyroid phase usually self-limiting – no role of ATD, can use beta blockers if symptomatic
    - Ddx Graves' disease
- Hypothyroid phase usually 6-12 months post partum (may be self-limiting)
    - Annual TSH for 5-10 years if thyroxine ceased, risk of overt hypothyroidism

Hyperthyroidism in pregnancy

Western Health

- TSH <0.01 mIU/L is present in ~5% of women by week 11 of pregnancy
- Subclinical hyperthyroidism has NOT been associated with adverse outcomes
- Gestational thyrotoxicosis
  - 1-3% of pregnancies
  - Often in hyperemesis gravidarum, multiple gestation, hydatidiform mole, choriocarcinoma
  - Antithyroid medications not recommended. T4 usually normalizes by 14-18 weeks, beta blockers may be considered
- Graves' disease
  - Goitre, orbitopathy may be present
  - T3 disproportionately elevated compared to T4, TRAb positive
  - Nuclear medicine uptake scan NOT recommended during pregnancy
- Less common: toxic MNG, toxic adenoma, subacute thyroiditis, surreptitious LT4

Graves' disease in pregnancy

- Risks of poorly controlled thyrotoxicosis in pregnancy: pregnancy loss, pregnancy-induced hypertension, prematurity, low birth weight, stillbirth, thyroid storm, maternal congestive heart failure
- Pre-pregnancy
  - Ideally stable thyroid function on two tests at least 1 month apart, on stable low dose antithyroid medication (aim switch to PTU pre-conception)
  - Can consider definitive treatment with patient counselling: ablative I^{131} (need to wait 6 months prior to conception and stable thyroid function) or thyroidectomy (quickest definitive therapy)

ATD considerations

- ATD cross the placenta resulting in fetal hypothyroidism at high doses
- Antithyroid medications and birth defects with exposure in first trimester
    - Carbimazole 2-4% (aplasia cutis, dysmorphic facies, choanal or oesophageal atresia, abdominal wall defects, eye, urinary system and ventricular septal defects)
    - PTU 2-3% (face and neck cysts, urinary tract abnormalities)
- PTU possibly hepatotoxic so only recommended after first trimester in intolerant to carbimazole (or thyroid storm)
- Drug resistant GD in pregnancy is rare. Total thyroidectomy if required in second trimester

Graves' disease in pregnancy

- If on low dose of ATD and stable TFTs, ATD may be withdrawn once pregnancy is confirmed
- If on carbimazole >10mg, active orbitopathy or large goitre, or high levels of TRAb, switch to PTU until second trimester (ideally pre-conception)
- ATD can often be discontinued in the last trimester
- Monitor TFTs every 2-4 weeks following initiation of therapy and every 4-6 weeks thereafter
- Aim maternal FT4 at or just above the pregnancy-specific upper limit of normal, or 1.5x the non-pregnancy range

Fetal considerations in Graves' disease

- TRAb is transferred through the placenta and may cause fetal hyperthyroidism (can occur in women who have had previous definitive treatment for Graves') -> check TRAb at 28-32 weeks and if positive, monitor fetus for signs of hyperthyroidism
- Neonatal hyperthyroidism occurs in 1-5% due to maternal TRAb remaining in neonatal circulation
    - If third trimester TRAb elevated – neonatal T4 and TSH should be monitored

Case 2: Graves' in Pregnancy

- 31F G1P0
- Graves' disease dx 12 months prior – CBZ dose 5mg daily at conception (initial dose 15mg TDS)
- At diagnosis: TRAb 17, FT4 56.8, FT3 24.5
- Pre-pregnancy: TSH 2.15, FT4 14.5, TRAb 0.45 (<0.55)
- CBZ ceased at conception
- Remained euthyroid during pregnancy off carbimazole
- TSH 2.52, FT4 14.7, FT3 5.2, TRAb 0.24
- TSH 2.21, FT4 15.2, TRAb 0.21

Case 2: Graves' in Pregnancy

- 5 months post partum presents with tachycardia and sweats to routine endocrinology review
- TSH <0.01, FT4 39.3, FT3 14.3, TRAb 3
- Recommenced CBZ 20mg daily with counselling regarding breastfeeding and ongoing follow-up for CBZ down titration

Post-partum maternal considerations

- Graves' may flare post partum and post partum follow-up important
  - Up to 80% of women in remission previously may have recurrence in the 2 years post partum
  - Measure TFT at 3 and 6 months post partum
  - DDx: post-partum thyroiditis – negative TRAb, higher T4/T3 ratio
- Breastfeeding
  - Low transfer in breast milk (0.1% of maternal ingested doses)
  - Maximal recommended dose in lactation ~20mg Carbimazole, 450mcg PTU
  - Considered safe to use – use lowest effective daily dose, observe infant for rashes/vomiting/fever
  - Carbimazole preferred over PTU due to risk of hepatotoxicity in mother/infant

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Surgical considerations

- Indication for surgery
  - Urgent control of hyperthyroidism
  - Patient preference
  - Intolerance or contraindication to antithyroid medication, RAI
  - Obstructive symptoms, risk of malignancy, multiple pathology
- Adherence
  - Requirement for lifelong thyroxine replacement post thyroidectomy
- Risks
  - Anaesthetic and surgical risks
  - Recurrent laryngeal nerve palsy
  - Hypoparathyroidism

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When to refer - HypOthyroidism

Western Health

Criteria for referral to public hospital specialist clinic services

- Persistent hypothyroidism despite adequate replacement treatment
- Pregnant women with thyroid stimulating hormone level (TSH) greater than 10 milliunit per litre with a history of Graves' disease or treatment with radioactive iodine
- Suspected or confirmed secondary hypothyroidism (i.e. low thyroid stimulating hormone level (TSH) and low free thyroxine (T4))
- Persistent thyroiditis that has lasted for more than 6 months.

Direct to an emergency department for:

- Suspected myxoedema coma (impaired conscious state, hypothermia, bradycardia) with high thyroid stimulating hormone level.

Information that must be provided

- Free thyroxine (T4) results and thyroid stimulating hormone level (TSH). Please provide series of results over time if the referral is related to persistent thyroiditis
- Thyroid related history including any history of surgery or Graves' disease
- Details of previous medical management including the course of treatment and outcome of treatment.

Provide if available

- Anti-thyroid peroxidase (TPO) antibodies results.

Additional comments

The Summary and referral information lists the information that should be included in a referral request.

Do not delay treatment initiation or modification where a referral has been made for a pregnant woman with hypothyroidism.

Thyroid ultrasound is not useful in assessing hypothyroidism.

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

When to refer - HypERthyroidism

Western Health

Criteria for referral to public hospital specialist clinic services

- Assessment of newly identified or recurring hyperthyroidism (including Graves' disease)
- Advice on, or review of, management plan for stable hyperthyroidism.

Direct to an emergency department for:

- Hyperthyroidism complicated by cardiac, respiratory compromise or other indications of severe illness (fever, vomiting, labile blood pressure, altered mental state)
- Neutropenic sepsis in patient taking carbimazole or propylthiouracil
- Hyperthyroidism with hypokalaemia or paralysis.

Information that must be provided

- Onset, characteristics and duration of symptoms
- Current and complete medication history (including non-prescription medicines, herbs and supplements), particularly medicines such amiodarone, lithium, biotin and kelp products
- Recent free triiodothyronine (T3), free thyroxine (T4) and thyroid stimulating hormone level (TSH)
- If the patient is pregnant.

Provide if available

- Anti- thyroid peroxidase (TPO) antibodies results
- Thyroid stimulating hormone receptor antibody (TRAb) or thyroid stimulating immunoglobulin (TSI) results
- Current and previous scan results (e.g. nuclear thyroid scan).

Additional comments

Thyroid ultrasound is not useful in assessing hyperthyroidism.

Where appropriate and available the referral may be directed to an alternative specialist clinic or service.

Endocrinology Specialist Clinics at Western Health:

Western Health provides the following Specialist Clinics for patients who require assessment and management of Endocrine conditions. Patients will be triaged by health professionals into management pathways according to specific clinical requirements.

In particular, Endocrinology Specialist Clinics at Western Health manage:

- Endocrine adrenal disorders including adrenal insufficiency, primary aldosteronism, and adrenal mass
- Endocrine thyroid disorders including hyperthyroidism, persistent hypothyroidism, and thyroiditis
- Endocrine pituitary disorders including prolactinoma, Cushing's disease, and acromegaly
- Primary and secondary hypogonadal disorders
- Familial or severe dyslipidaemia
- Amenorrhoea
- Suspected insulinoma and other disorders of endogenous hyperinsulinaemic hypoglycaemia

Conditions not seen by Endocrinology Specialists at Western Health:

- Clinically stable hypothyroidism
- Primary hypothyroidism (except in patients with cardiac disease, pregnancy or if thyroxine treatment is contraindicated) that has not been treated with replacement therapy
- Adrenal mass >3cm in size or confirmed malignancy – refer to **General Endocrine Surgery**
- Obesity (without diabetes): Consider referral to **Obesity Clinics** at RMH, Alfred Health or Monash Health
- Transgender care: Consider referral to **Monash Health or Austin Health**
- Polycystic Ovarian Syndrome: Consider referral to **Gynaecology Service**
- Patients with diabetes to **Diabetes Specialist Clinic**
- Patients with osteoporosis or hypercalcaemia to **Metabolic Bone Disorder Specialist Clinics**
- Patients with thyroid mass or nodules with normal thyroid function to **General Endocrine Surgery Specialist Clinic**
- Pregnant patients with endocrine conditions to **Antenatal Clinic** (*ensure endocrine issues stated on referral to assist with triage/urgency)
- Patients with menopause and perimenopause to the **Women's Health Clinic**

Endocrinology Alarm Symptoms:

Direct to emergency department:

- Vomiting or persistent diarrhoea in patient with adrenal insufficiency
- Malignant hypertension
- Hyperthyroidism complicated by cardiac, respiratory compromise or other indications of severe illness (fever, vomiting, labile blood pressure, altered mental state)
- Neutropenic sepsis in patient taking carbimazole or propylthiouracil
- Hyperthyroidism with hypokalaemia or paralysis
- Suspected myxoedema coma (impaired conscious state, hypothermia, bradycardia) with high thyroid stimulating hormone level
- Severe headache or visual impairment in patient with pituitary mass
- Suspected new onset arginine vasopressin (AVP) deficiency (formerly diabetes insipidus)

Call Endocrinology Registrar to discuss (03 8345 6666 and page):

- Newly diagnosed or suspected adrenal insufficiency

Western Health Specialist Clinics
Access & Referral Guidelines

Western Health

Access & Referral Priority Endocrinology:

The clinical information provided in your referral will determine the triage category. The triage category will affect the timeframe in which the patient is offered an appointment.

URGENT **Appointment timeframe 30 days.**	ROUTINE **Appointment timeframe greater than 30 days, depending on clinical need.**
Adrenal • Acute adrenal insufficiency (suspected or confirmed) • Severe untreated chronic adrenal insufficiency • Severe hypertension in primary aldosteronism • Adrenal mass less than 3cm with hypersecretion	**Adrenal** • Established adrenal insufficiency on treatment • Steroid-induced insufficiency on glucocorticoids • Primary aldosteronism without severe hypertension • Adrenal mass less than 3cm without features of malignancy or hypersecretion (>3cm refer to General Endocrine Surgery)
Thyroid • Hyperthyroidism in pregnancy (please refer to Obstetric Endocrinology) • Hypothyroidism with mild symptoms or TSH >20	**Thyroid** • Newly identified or recurring hyperthyroidism (including Graves' disease) • Persistent inadequately controlled hypothyroidism
Pituitary • Pituitary disorder with headache or features of hormone excess or deficiency	**Pituitary** • Pituitary disorder without headache or features of hormone excess or deficiency
Male hypogonadism • Acute onset male hypogonadism	**Male hypogonadism** • Subacute or chronic male hypogonadism
Amenorrhoea • Amenorrhoea with galactorrhoea, acute virilisation, or features of hypopituitarism	**Amenorrhoea** • Isolated amenorrhoea for investigation and management
Hirsutism • Hirsutism with virilisation, Cushingoid features, or rapid progression	**Hirsutism** • Hirsutism without features of severe androgen excess
Hypoglycaemia • Hypoglycaemic disorder worsening in severity or frequency	**Hypoglycaemia** • Non-severe fasting or postprandial hypoglycaemic disorder

Condition Specific Referral Guidelines:

Key information enables Western Health to triage patients to the correct category and provide treatment with fewer visits to specialist clinics, creating more capacity for care. If key information is missing, you may be asked to return the referral with the required information.

Condition:	Key Information Points:	Clinical Investigations:
Adrenal insufficiency	**Essential:** • Details of clinical presentation • Past medical history • Current medication list • Previous management details • Relevant family history • Any history of hyperpigmentation	**Essential:** • Electrolytes and creatinine • Fasting glucose • Early morning cortisol **Provide if available:** • ACTH • Renin and aldosterone • Pituitary hormonal panel
Primary aldosteronism	**Essential:** • Details of clinical presentation • Past medical history • Current medication list • Previous management details • Relevant family history • Any history of hypokalaemia	**Essential:** • Electrolytes and creatinine • Renin and aldosterone • Aldosterone to renin ratio (ARR) **Provide if available:** • 1mg dexamethasone suppression test • Plasma metanephrines
Adrenal mass* - *Less than 3cm without features of malignancy (>3cm or features of malignancy refer to General Endocrine Surgery)	**Essential:** • Details of clinical presentation • Past medical history • Current medication list • Previous management details • Relevant family history • Any history of change over time	**Essential:** • Dedicated adrenal CT • Plasma metanephrines • 1mg dexamethasone suppression test • Renin and aldosterone **Provide if available:** • 24-hour urinary catecholamines • Testosterone and DHEAS
Hyperthyroidism	**Essential:** • Details of clinical presentation including thyroid tenderness or features of opthalmopathy. • Past medical history • Current medication list • Pregnancy status • Previous management details • Relevant family history	**Essential:** • Full blood examination (FBE) • Thyroid stimulating hormone (TSH) • Free thyroxine (T4) • Free triiodothyronine (T3) **Provide if available:** • TSH-R Antibody (TRAb) or TSI results • Anti-TPO Antibody results • Liver function tests • Current and previous scan results (e.g. nuclear thyroid scan) • ***Thyroid ultrasound is not useful in assessing hyperthyroidism***

Western Health Specialist Clinics
Access & Referral Guidelines

Western Health

Hypothyroidism *Refer if:* - *Persistent hypothyroidism despite adequate replacement treatment* - *Suspected or confirmed secondary hypothyroidism (i.e. low TSH and low T4)* - *Persistent thyroiditis that has lasted for more than 6 months*	**Essential:** • Details of clinical presentation • Past medical history • Current medication list • Previous management details including radioactive iodine • Relevant family history • Any history of thyroid surgery	**Essential:** • Thyroid stimulating hormone (TSH) • Free thyroxine (T4) • Historic results (if persistent thyroiditis) **Provide if available:** • Anti-TPO Antibody results • ***Thyroid ultrasound is not useful in assessing hyperthyroidism***
Pituitary disorders	**Essential:** • Details of clinical presentation and assessment of visual fields • Past medical history • Current medication list • Details of any radiotherapy or pituitary surgery • Previous management details • Relevant family history •	**Essential:** • Electrolytes and creatinine • Prolactin • Cortisol ± Adrenocorticotropic hormone (ACTH) • 24-hour urine free cortisol (UFC) in suspected Cushing's • IGF-1 level (in suspected acromegaly) **Provide if available:** • TSH and free thyroxine (T4) • FSH, LH and oestradiol or testosterone • MRI pituitary • Visual fields report (optometrist)
Male hypogonadism	**Essential:** • Details of clinical presentation • Past medical and pubertal history including any testicular trauma • Current medication list and past anabolic steroid use	**Essential:** • Full blood examination (FBE) • Total and free testosterone • SHBG • FSH and LH **Provide if available:** • Prolactin • Bone densitometry
Amenorrhoea	**Essential:** • Details of clinical presentation • Past medical history incl menstrual and pubertal history, any history of eating disorders or cancer treatment. • Current medication list • Relevant family history	**Essential:** • BHCG • Prolactin • FSH, LH and oestradiol • Testosterone • TSH **Provide if available:** • SHBG • DHEAS • Pelvic ultrasound

When to refer - Thyroid Mass (including nodules)

Western Health

Criteria for referral to public hospital specialist clinic services

- Assessment of suspected malignancy
- Thyroid mass associated with mild to moderate compressive symptoms
- Thyroid mass associated with hyperthyroidism.

Direct to an emergency department for:

- Thyroid mass with difficulty in breathing.

Information that must be provided

- Ultrasound with, or without, fine needle aspiration results
- Thyroid stimulating hormone (TSH) and free thyroxine (T4) results.

Provide if available

Not applicable.

Additional comments

The Summary and referral information lists the information that should be included in a referral request.

Note: there are also ENT statewide referral criteria for Thyroid mass.

Where appropriate and available the referral may be directed to an alternative specialist clinic or service.

When to refer - Thyroid Mass (including nodules)

Western Health

Criteria for referral to public hospital specialist clinic services

- Suspected or confirmed malignancy
- Compressive symptoms:
  - changing voice
  - difficulty in breathing
  - dysphagia
  - suspicious dominant nodules or compressive neck nodes
- Generalised thyroid enlargement without compressive symptoms
- Recurrent thyroid cysts
- An increase in the size of previously identified benign thyroid lumps greater than 1 centimetre in diameter.

Direct to an appropriate emergency department for:

- Thyroid mass with difficulty in breathing or with bleeding from the nodule.

Information that must be provided:

- Ultrasound with, or without, fine needle aspiration results
- Thyroid stimulating hormone (TSH) and free thyroxine (T4) results.

Provide if available:

Not applicable.

Additional comments

The Summary and referral information lists the information that should be included in a referral request.

Note: there are also endocrinology statewide referral criteria for Thyroid mass and Hyperthyroidism. Referrals for patients with hyperthyroidism should be directed to an endocrinology service.

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

Endocrine Surgery Specialist Clinics at Western Health:

Western Health provides General & Endocrine Surgery Specialist Clinics for patients who require assessment and management of Thyroid, Parathyroid and Adrenal conditions. Patients will be triaged by Consultant Endocrine Surgeons into management pathways according to specific clinical requirements.

In particular, Endocrine Surgery at Western Health manages:

- Thyroid nodules
- Hyperthyroidism due to toxic thyroid nodules
- Primary hyperparathyroidism
- Adrenal nodules

Conditions not seen by Endocrine Surgeons at Western Health:

- Thyroiditis
- Hyperthyroidism from Graves disease, or drug-induced, should initially be referred to Endocrinology
- Thyroid nodules <1cm without suspicious features
- Pancreatic tumors or conditions and Gallbladder conditions- Refer to Upper Gastrointestinal Surgery

Endocrine Surgery Alarm Symptoms:

The following conditions require urgent medical attention, and urgent referral to the Endocrine Surgery Fellow should be arranged via Footscray Hospital:

Thyroid	- Rapidly growing thyroid nodule(s) over a few weeks or months - Signs or symptoms of airway obstruction or voice change secondary to thyroid nodules(s)
Parathyroid	- Calcium level >3mmol/L
Adrenal	- Adrenal nodules with atypical enhancement characteristics on dedicated CT adrenal study - Evidence of phaeochromocytoma (elevated plasma metanephrines), virilization or Cushing's Syndrome
Hernias	- Painful or irreducible hernias with concern for obstruction or strangulation

Western Health Specialist Clinics
Access & Referral Guidelines

Western Health

Access & Referral Priority for Endocrine Surgery:

The clinical information provided in your referral will determine the triage category. The triage category will affect the timeframe in which the patient is offered an appointment.

URGENT **Appointment timeframe 30 days.**	ROUTINE **Appointment timeframe greater than 30 days, depending on clinical need.**
• Thyroid nodules >1cm with significant malignant potential or causing clinically significant airway obstruction • Primary hyperparathyroidism with a corrected calcium level of >3mmol/L • Adrenal nodules with significant malignant potential or if thought to be a phaeochromocytoma	• Thyroid, parathyroid and adrenal conditions which do not have symptoms or signs requiring an urgent appointment • Irreducible inguinal hernia without evidence of bowel strangulation or obstruction

Condition Specific Referral Guidelines:

Key information enables Western Health to triage patients to the correct category and provide treatment with fewer visits to specialist clinics, creating more capacity for care. If key information is missing, you may be asked to return the referral with the required information.

Condition:	Key Information Points:	Clinical Investigations:
Thyroid nodules	• >1cm in size • Details of nodule or thyroid growth incl. time frame • Details of compressive symptoms or voice changes • Family history of thyroid cancer • Details of any significant radiation exposure to head/neck particularly as a child • Past medical history and medication list	• Thyroid stimulating hormone (TSH) and free thyroxine (T4) if TSH abnormal • Ultrasound neck/thyroid with or without fine needle aspiration • Thyroid antibodies (if hypothyroid)
Primary hyperparathyroidism calcium level is >3mmol/L	• Details of clinical symptoms • Past medical history and medication list	• Corrected calcium • Parathyroid hormone • U & E • Vitamin D • Urine calcium – spot urine
Adrenal nodules	• Past medical history and medication list including details of any previous malignancy	• FBE

How to refer to outpatient services

Western Health

Adult Specialist Clinics

- Phone: 03 8345 6856
- Fax: 03 8345 6490

https://westernhealth.org.au/health-professionals/referrals/how-refer

The Endocrinology and Endocrine Surgery teams can also be contacted via switch if you wish to provide direct handover regarding a patients care

Outline

- 1. Overview of common thyroid disorders
- 2. Local burden of thyroid disease
- 3. Thyroid services at Western Health
- 4. Case presentations highlighting common management considerations
- 5. Management decisions in hyperthyroidism
- 6. Review of current thyroid disease guidelines
- 7. Thyroid disease in pregnancy
- 8. Surgical considerations in management
- 9. How and when to refer?
- **10. Q+A session**

Western Health

Questions?

Measuring outcomes for today

To obtain Measuring Outcomes hours for this session use the RACGP's Measuring Outcomes Tool.

Follow these five steps:

1. Log-in to myCPD
2. At very top of myCPD, click on 'Log'
3. From drop-down menu, click on 'Measuring Outcomes Tool'
4. Complete the form
5. Once you have completed the form, go to top of form and click 'Submit'

Thank you for attending. What's next?

After this session you will receive:

1. *Slides, resources and the recording of this session within the week*
2. *RACGP CPD hours will be uploaded within 14 days.*
3. *Attendance certificate will be received within 4-6 weeks.*

- ***Register for more education sessions here:*** *nwmphn.org.au/resources-events/events*
- ***Past education sessions can be found here:*** *nwmphn.org.au/resources-events/resources*

Feedback - QR code

We welcome your feedback. Let us know if you got what you needed from this session.