Thyroid Disease in Pregnancy

1. Who to screen pre- or in <u>early</u> pregnancy (TSH)

- History of thyroid dysfunction, postpartum thyroiditis and/or thyroid surgery
- Symptoms and/or clinical signs suggestive of thyroid dysfunction or goitre
- Family history of thyroid disorder
- Presence of thyroid or other autoantibodies
- Type 1 diabetes mellitus
- Prior irradiation of head or neck
- Infertility (as part of the infertility work-up)
- History of recurrent miscarriage and/or preterm delivery
- Age ≥ 35

2. Thyroid function test reference ranges in pregnancy

Use **<u>laboratory- and trimester- specific ranges</u>**. If unavailable, **a TSH upper reference limit ~0.5mIU/L below the non-pregnant TSH upper reference limit may be used**; **a TSH lower reference limit of 0.1, 0.2 and 0.3mIU/L may be used for the first, second and third trimesters respectively**.

3. RPAH ANC Thyroid referral criteria

(a) TSH ≥4mIU/L (on <u>early</u> pregnancy screen)

<u>Please try to limit referrals to those patients you are uncomfortable in managing or if patient has overt hypothyroidism i.e. an elevated TSH with low fT4 or if TSH ≥10 mIU/L</u>

- Always check **TPOAb**
- Can discuss with Endocrinology registrar regarding Thyroxine dose if unsure
- Monitor TSH every **4-6 weeks till 20 weeks** with a final check at **28-32 weeks**
- If Thyroxine is commenced and **TPOAb –ve**, can stop Thyroxine at term. Check TFT 2-3 months' postpartum
- If Thyroxine is commenced and **TPOAb +ve**, <u>halve</u> Thyroxine dose at term and repeat TFT 2-3 months' postpartum. Monitor for postpartum thyroiditis at 3,6 and 12 months postpartum
- Women on Thyroxine pre-pregnancy will generally require a **20 to 50% dose increase** once pregnancy is confirmed. The dose of Thyroxine can be **reduced to the pre-pregnancy dose at term**

TPOAb = thyroid peroxidase antibodies

<u>Suggested *initial* Thyroxine dose for hypothyroidism diagnosed in pregnancy:</u>

TSH (mIU/L)	Thyroxine dose (weight based calculation) mcg/kg/day	Thyroxine dose (approximate) mcg
ULN-5	1-1.5	50-75
5-10	1-1.7	75-100
>10	1.7-2.5	100-200

ULN= upper limit of norm

(b) Suppressed TSH (e.g. <0.01mIU/L)

<u>Check fT4, fT3 and TRAb</u>

- If fT4 and fT3 are normal with negative TRAb, repeat TFT in 4-6 weeks. May be due to transient gestational hyperthyroidism. Refer if TSH remains suppressed
- Refer if elevated fT4 and/or fT3 and/or TRAb +ve

(c) Past or current history of Graves' disease:

<u>Check fT4, fT3 and TRAb</u>

Refer to determine

- risk of fetal hyperthyroidism
- need for monitoring and/or treatment in pregnancy
- risk of postpartum flare

NB risk of persistent TRAb post RAI and total thyroidectomy

(d) Thyroid nodule

<u>Order TSH and ultrasound</u>

Please ensure that <u>ALL</u> fields are completed on the referral form with <u>CURRENT (ie <3 weeks)</u> pathology prior to faxing to Endocrine Unit : FAX 9515 8728

Source: Dr Ash Gargya - Endocrinologist RPAH (revised June 2018)
Julie Hetherington - Clinical Nurse Consultant, Endocrinology & Metabolism

- Patients who already take Thyroxine will usually need an increase in dose once pregnancy is confirmed
- This will usually be between a 20 to 50% increase in the dose
- They therefore should have **initial** and then **4-6 weekly** bloods done with a target TSH within the laboratory trimester-specific reference range or, if unavailable, a target TSH of <2.5 in the 1st trimester, <3.0 in the 2nd trimester and <3.5mU/L in the 3rd trimester
- If the target TSH is maintained then the GP can continue to manage patient

Guide to Antenatal Thyroid Clinic referral to RPAH

Hyperthyroidism

TSH is lower than reference range but is still detectable

No need to refer
Repeat TSH in 4 weeks.
If TSH becomes undetectable

TSH is undetectable

Check fT4,fT3 and TRAb

Normal (i.e. subclinical)
Recheck TFT in 4 weeks
No need to refer

Abnormal
Refer

ANY history of Graves' disease
i.e. current or previous

Hypothyroidism
with
TSH >4mIU/L
Prefer GP to manage if mild

Thyroid nodule
or
h/o thyroid cancer

Red Light
identified
Needs referral

Referral letter to be faxed to Antenatal Thyroid Clinic
FAX 9515 8728
Please use the pro forma referral

Thyroid Clinic will make contact with the patient and arrange an apppointment

ANY patient with existing thyroid/endocrine disease who sees a private Endocrinologist

Non RPAH Endocrinologist
Because of RPA clinical responsibility the patient **MUST** be reviewed at least once in Antenatal Thyroid clinic

RPAH Endocrinologist

Patient instructed to contact their Endocrinologist to arrange treatment & follow up

Any urgent queries or clarifications contact Dr Ash Gargya (Endocrinologist) or Sr Julie Hetherington (CNC Endocrinology) phone 9515-7225 fax 9515 8728 (office hours)
OUT OF HOURS ring RPAH on ph. 9515 6111 and page the Endocrinology Registrar on call

* Please refer to guidelines re: trimester TSH targets

Revised : June 2018