THYROID DISEASE IN PREGNANCY

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM
   - Appropriate management of a woman with subclinical or overt hypothyroid disease in pregnancy

2. PATIENT
   - Woman with hypothyroidism in pregnancy

3. STAFF
   - Medical Staff
   - Registered Midwives

4. EQUIPMENT
   - Nil

5. CLINICAL PRACTICE
   - Recommend all women have adequate iodine intake in pregnancy (250 micrograms/day) with a suitable supplement
   - Do not recommend universal thyroid screening in pregnancy
   - Recommend thyroid function testing from 8 weeks gestation in women on thyroid replacement prior to pregnancy as an increase in thyroxine requirements is common
   - Use gestational specific ranges for each Laboratory: at SEALS the upper limit of normal for TSH in the first trimester is 2.5mIU/L, in other labs this may be up to 2.9 mIU/L
   - Use non pregnant reference ranges prior to pregnancy
   - Refer to following algorithm (Figure 1) for management of abnormal thyroid function tests in pregnancy at RHW
   - Refer to High Risk Medical Clinic (RHW Thursday afternoon) or Private Endocrinologist as per algorithm if thyroid function tests are abnormal in pregnancy
THYROID DISEASE IN PREGNANCY  cont’d

Figure 1 : Algorithm for initial management of abnormal thyroid function tests in pregnancy

Ongoing management of treated subclinical or overt hypothyroidism in pregnancy and the immediate postpartum period.

- Assess woman clinically for symptoms or signs of hypothyroidism or hyperthyroidism. There may be significant overlap between symptoms of normal pregnancy, especially in the first 12-16 weeks and thyroid disease.
- Recheck TSH, FT4 and FT3 at 6-8 weekly intervals during pregnancy after commencement or adjustment of thyroxine treatment
- Aim to maintain TSH between 0.5 and 2.5 with FT4 and FT3 in the upper half of the normal gestational matched range for the laboratory you are using
- Adjust doses of thyroxine postpartum :
  - Previously on thyroxine: Reduce thyroxine dose back to non-pregnant dose immediately after delivery, and recheck after 4-6 weeks
  - Subclinical hypothyroidism or who were not on therapy prior to pregnancy: Reduce dose of thyroxine by 50% or cease after delivery. Recheck in 4-6 weeks. Attempt to withdraw therapy, especially in women who are thyroid Ab negative
  - Women who are thyroid peroxidase Ab positive: there is a significant risk of postpartum thyroiditis manifesting as either transient hyperthyroidism followed by hypothyroidism or worsening hypothyroidism. These women should be observed clinically and additional thyroid testing performed where appropriate. e.g. screen with TSH at 4 weeks and 12 weeks post partum

- TSH - thyroid stimulating hormone
- FT4 = free thyroxine: normal ranges for pregnancy are different in each Laboratory
- Thyroid antibodies (Thyroid Ab) i.e. thyroid peroxidase and thyroglobulin antibodies
- Only check Thyroid Receptor Antibodies (=Thyroid Stimulating Immunoglobulin) if Grave’s disease is suspected

- TSH < 0.1
  - Check FT4
  - If FT4 within normal range, recheck in 4 weeks and refer if above
  - If FT4 above normal range, refer for review within 2 weeks
- 0.1 – 2.5
  - No further action
- 2.5 - 5
  - Check TSH and thyroid antibodies
  - 1. Check FT4 and thyroid Ab
  - 2. Commence Thyroxine 50 micros daily
- > 5
  - Refer for review within 4 weeks
  - 1. Check FT4 and thyroid Ab
  - 2. Commence Thyroxine 100 micros/day
- > 10
THYROID DISEASE IN PREGNANCY  cont’d

6. DOCUMENTATION
   • ObstetriX
   • Integrated Clinical Notes
   • Medication Chart
   • Antenatal Card

7. EDUCATIONAL NOTES
   • Comprehensive guidelines exist for management of thyroid disease in pregnancy (1-2). This LOP is a simple approach to initial management if abnormal thyroid function is detected
   • TSH falls in the first trimester, increasing towards non-pregnant levels in the second and third trimesters
   • Overt maternal hypothyroidism is associated with adverse pregnancy outcomes; thyroxine treatment should be commenced immediately in this condition. Overt hypothyroidism is defined as an elevated TSH associated with a low free T4
   • Thyroxine treatment has also been shown to be effective for pregnant women with subclinical hypothyroidism who are thyroid peroxidase antibody positive
   • Postpartum thyroiditis most commonly presents with isolated hypothyroidism, but a biphasic presentation and isolated hyperthyroidism can occur: a high index of suspicion is warranted for diagnosis
   • In women with hyperemesis gravidarum who also have suppressed thyroid-stimulating hormone levels, treatment of hyperthyroidism should not be undertaken without evidence of intrinsic thyroid disease (including goiter and/or thyroid autoantibodies)

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP
   • Hyperemesis Gravidarum and Nausea and Vomiting in Pregnancy – Management
   • ACM Guidelines Consultation and Referral

9. REFERENCES
   3. Forehan S, Thyroid disease in the perinatal period. Australian Family Physician 2012;41,(8) 578-582

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