

PubMed



Abstract

Full text links

Aust N Z J Obstet Gynaecol. 2016 Mar 23. doi: 10.1111/ajo.12462. [Epub ahead of print]



## Prevalence of thyroid dysfunction and thyroid antibodies in a private obstetrical practice in Sydney.

Blumenthal NJ<sup>1</sup>, Byth K<sup>2</sup>, Eastman CJ<sup>3</sup>.

### Author information

<sup>1</sup>Blacktown Hospital and Norwest Private Hospital, Sydney, New South Wales, Australia.

<sup>2</sup>NHMRC Clinical Trials Centre, Faculty of Medicine, University of Sydney, Sydney, New South Wales, Australia.

<sup>3</sup>Sydney Medical School, University of Sydney, Sydney, New South Wales, Australia.

### Abstract

**BACKGROUND:** Hypothyroidism in pregnancy is associated with adverse obstetrical events and neurodevelopmental disorders in infants. The prevalence of thyroid dysfunction during pregnancy in Australia is not well documented, and universal screening remains questionable.

**AIM:** To assess the prevalence of thyroid dysfunction and positive thyroid antibodies and review the indications for universal screening of thyroid function in pregnancy.

**MATERIALS AND METHODS:** The prospective observational study was undertaken between 2009 and 2014. Thyroid-stimulating hormone (TSH), free thyroxine (FT4) levels, thyroglobulin antibodies (TgAb) and thyroid peroxidase antibodies (TPOAb) were measured in 1069 women at booking-in.

**RESULTS:** One hundred and three women, (9.6%), exhibited subclinical hypothyroidism, with TSH levels  $>2.5$  mIU/l. Eighty-seven women (8.1%) had TSH levels  $> 2.5$  and  $\leq 5$  mIU/l. Of these, 41.4% (36 patients) were positive for TPOAb. Twelve women (1.5%) had a TSH  $>5$  and  $\leq 10$  mIU/l with 66.7% (8 patients) positive for TPOAb. Four patients (0.4%) had a TSH level  $>10$  mIU/l with 50% (2 patients) positive for TPOAb. Positive thyroid antibodies were detected in 258 patients (24.13%). Although statistically significant, the rank correlations between TSH and TPOAb ( $r = 0.08$ ,  $P = 0.023$ ) and TgAb ( $r = -0.081$ ,  $P = 0.021$ ) were weak. Similarly, weak rank correlations were observed between TSH and age ( $r = -0.095$ ), parity ( $r = -0.081$ ) and weight ( $r = 0.089$ ).

**CONCLUSION:** A high prevalence of subclinical hypothyroidism and positive thyroid antibodies exists in this cohort, as well as unsuspected chemical hypothyroidism, providing a strong case for universal screening with TSH and the consideration of thyroid antibody testing of all Australian pregnant women.

© 2016 The Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

**KEYWORDS:** pregnancy; raised thyroid antibodies; thyroid-stimulating hormone