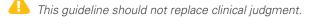
Clinical Guideline

If TFTs are abnormal



Surveillance of Neonatal Graves Disease

Guidelines for Both Inpatient and Outpatient Management

Call CHOR Pediatric Endocrinology 804-828-2467

Clinical Manifestations of Thyroid Disease:

- Poor feeding
- Poor weight gain
- Sweating/flushing
- Irritability
- Diarrhea

Physical Exam Findings of Thyroid Disease:

- Tachycardia
- Tachypnea
- Hyperthermia
- Hypertension
- Goiter
- Warm, flushed, moist skin
- Eyelid retraction
- Small fontanelle

Please refer to the ED if any of the following are present:

- Hemodynamic instability
- Arrhythmias
- Heart failure
- Tracheal compression

Determine Maternal TRAb and
TSI in 2nd or 3rd trimester in
any woman with current or past
history of Graves Disease

If antibodies are
positive or unknown

DOL 1 (after 24h of life):
Provider Visit, obtain TSH,
FT4, TT3, TSI and TRAb

If antibodies are negative
AND TFT's are normal

If TFTs are normal, but antibodies unknown/pending

DOL 3-5: Provider Visit, obtain TSH, FT4, TT3

If TFTs are normal, but antibodies unknown/pending

DOL 10-14: Provider Visit, obtain TSH, FT4, TT3

If antibodies are negative AND TFT's are normal

If antibodies are negative

AND TFT's are normal

If TFTs are normal but TSI/TRAb are positive or unknown, the infant should be followed clinically by pediatrician weekly until 4 weeks of age and again at 2 months. No labs are required unless clinical exam changes.

If antibodies are negative

No further specific work-up needed. Maintain clinical suspicion based on symptoms at PCP visits

Reference Ranges of Thyroid Function Tests in Term Infants TSH

- Birth-4 Days:
- 3.2-35 mU/L 1-4 Weeks:

1.0-9.1 mU/L

• 1-11 months 0.8-8.2 mU/L

Free T4

- Birth-4 Days:
 0.66-2.71 ng/dL
- 4 Days-1 month:
 0.83-3.09 ng/dL
- 1-11 months:
 0.48-2.34 ng/dL

TT3

- 1-3 Days: 89-405 ng/dL
- 1 week: 91-300 ng/dL
- 1-11 months: 85-250 ng/dL



Algorithm adapted from Van der Kaay et al, Pediatrics, 2016 Reference ranges from Styne Pediatric Endocrinology.

chrichmond.org

For questions concerning this guideline, contact: chorclinicalguidelines@vcuhealth.org First approved: May 2024 Next expected update: May 2027

Neonatal Graves Disease Guideline **Executive Summary**

Children's Hospital of Richmond Surveillance of Neonatal Graves Disease Protocol Workgroup

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Pediatric Resident Owner: Pooja Gajulapalli, MD

Mother-Infant Unit Medical Director: Tiffany Kimbrough, MD

Approved (July 2023)

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References

Van der Kaay, D. C. M., Wasserman, J. D., & Palmert, M. R. (2016). Management of neonates born to mothers with graves' disease. Pediatrics, 137(4). https://doi.org/10.1542/peds.2015-1878

Styne DM. Pediatric Endocrinology: A Clinical Handbook. 1st ed. 2016. Springer International Publishing AG; 2016. doi:10.1007/978-3-319-18371-8

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