Congenital Hypothyroidism (TSH)

- **NBS DBS TSH Screening**
  - **TSH normal**
    - No risk factors
      - No further action required
    - High risk group*
      - DBS T4 Test
        - Follow T4 algorithm
  - **TSH inconclusive**
    - DBS T4 Test
  - **TSH elevated**
    - <24 hrs. age DBS T4 test
      - T4 >10%
        - Confirmatory serum test(s)*
      - T4 <10%
        - Repeat DBS screen
          - [return to top]
    - >24 hrs. age
      - T4 >10%
        - Confirmatory serum test(s)*
      - T4 <10%
        - Repeat DBS screen
          - [return to top]

* High risk group
  - <1500 gm
  - NICU admission
  - Same sex twin
  - Transfusion
  - CHD/other severe congenital anomaly
  - Drugs: dopamine, steroids, iodine

* Confirmatory Serum Tests
  - Free T4 [or]
  - 4 and T3 resin uptake (T3RU)
  - TSH

Actions are shown in shaded boxes; results are in the unshaded boxes.

**Abbreviations/Key**
- DBS = Dried blood spot
- NBS = Newborn Screening
- TSH = Thyroid stimulating hormone
- T4 = Thyroxine or total thyroxine

**Disclaimer:** This guideline is designed primarily as an educational resource for clinicians to help them provide quality medical care. It should not be considered inclusive of all proper procedures and tests or exclusive of other procedures and tests that are reasonably directed to obtaining the same results. Adherence to this guideline does not necessarily ensure a successful medical outcome. In determining the propriety of any specific procedure or test, the clinician should apply his or her own professional judgment to the specific clinical circumstances presented by the individual patient or specimen. Clinicians are encouraged to document the reasons for the use of a particular procedure or test, whether or not it is in conformance with this guideline. Clinicians also are advised to take notice of the date this guideline was adopted, and to consider other medical and scientific information that becomes available after that date.

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