Lab Dept: Chemistry
Test Name: BILIRUBIN, TOTAL

General Information

Lab Order Codes: TBIL
Synonyms: Total Bilirubin; Nbil; Neonatal Bilirubin
CPT Codes: 82247 – Bilirubin; total
Test Includes: Total bilirubin concentration reported in mg/dL.

Logistics

Test Indications: Bilirubin is the orange-yellow pigment derived from senescent red blood cells. It is extracted and biotransformed in the liver. Bilirubin is screened and monitored for liver disorders, such as jaundice, or liver disease, such as cirrhosis. Total bilirubin measures the entire concentration of bilirubin in the blood.
Lab Testing Sections: Chemistry
Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550
Test Availability: Daily, 24 hours
Turnaround Time: 1 hour
Special Instructions: N/A

Specimen

Specimen Type: Blood
Container: Preferred: Green top (Li Heparin) tube
Alternate: SST: Red, marble or gold top tube
Draw Volume: 0.6 mL blood
Processed Volume: 0.2 mL plasma/serum
Collection: Routine blood collection
**Special Processing:** Lab Staff: Specimen must be separated from cells within 2 hours of collection. Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Analyze within 2 hours, or protect from light.

**Patient Preparation:** Remove photo therapy prior to sample collection.

**Sample Rejection:** Unlabeled or mislabeled specimen

### Interpretive

#### Reference Range:

<table>
<thead>
<tr>
<th>Method</th>
<th>Age</th>
<th>Range (mg/dL)</th>
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</thead>
<tbody>
<tr>
<td>Method Vista</td>
<td>0 – 2 weeks:</td>
<td>0.2 - 11.7 mg/dL</td>
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<tr>
<td></td>
<td>2 weeks – 10 years:</td>
<td>0.2 - 0.9 mg/dL</td>
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<td>&gt;10 years:</td>
<td>0.2 – 1.0 mg/dL</td>
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<tr>
<td>Method Abbott</td>
<td>0 – 14 days:</td>
<td>0.2 – 16.6 mg/dL</td>
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<td>15 – 364 days:</td>
<td>0.1 – 0.7 mg/dL</td>
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<td>1 – 8 years:</td>
<td>0.1 – 0.4 mg/dL</td>
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<td>9 – 11 years:</td>
<td>0.1 – 0.6 mg/dL</td>
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<td>12 – 14 years:</td>
<td>0.1 – 0.7 mg/dL</td>
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<td>15 – 18 years:</td>
<td>0.1 – 0.8 mg/dL</td>
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<td>Adult:</td>
<td>0.2 – 1.2 mg/dL</td>
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**Critical Values:**

- <1 day: >12.0 mg/dL
- >1 day: >15.0 mg/dL

**Limitations:** Exposure to light rapidly and significantly decreases bilirubin.

**Methodology:**

- **VISTA:** Modified Jendrassik-Grof
- **ABBOTT:** Diazonium Salt
References:

TBI Flex® reagent cartridge insert sheet PN 717167.001 Issue Date 04/07/2008 Rev. B

Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714

Architect Total Bilirubin Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, February 2017

Alinity Total Bilirubin Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, March 2018


Biorad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Biorad Liquichek Pediatric Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Frequently Asked Questions (March 2008) Dade Behring, Global Products Support

Updates:

2/8/2016: Update alt tube types
9/13/2016: Update “protect from light” requirements
10/18/2019: New backup instrumentation and related reference ranges