Lab Dept: Chemistry

Test Name: BILIRUBIN, TOTAL & DIRECT

**General Information**

Lab Order Codes: BILI

Synonyms: Total & Direct Bilirubin; Nbil; Neonatal Bilirubin; Conjugated Bilirubin

CPT Codes: 82247 – Bilirubin, total
            82248 – Bilirubin, direct

Test Includes: Total and direct bilirubin concentrations 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: Gold, marble or red 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 processed within 2 hours of collection. Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Analyze within 2 hours, or protect from light. Store refrigerated.

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

**Sample Rejection:** Unlabeled or mislabeled specimens

### Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Age:</strong></td>
<td><strong>Range (mg/dL):</strong></td>
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<tr>
<td>0 – 2 weeks:</td>
<td>0.2 - 11.7 mg/dL</td>
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<tr>
<td>2 weeks – 10 years:</td>
<td>0.2 - 0.9 mg/dL</td>
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<tr>
<td>&gt;10 years:</td>
<td>0.2 – 1.0 mg/dL</td>
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#### Direct

| 0 – 2 weeks: | 0.0 – 1.2 mg/dL |
| >2 weeks: | 0.0 – 0.3 mg/dL |

#### Critical Values:

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<tr>
<th>Total:</th>
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<td>&gt;1 day:</td>
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<tr>
<td>&lt;1 day:</td>
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**Limitations:** Hemolysis of the sample falsely decreases the direct bilirubin result. Exposure to light rapidly and significantly decreases bilirubin.

**Methodology:** Modified Jendrassik-Grof

**References:**

DBI Flex® reagent cartridge insert sheet, Siemens Healthcare Diagnostics, PN 717125.001 Issue Date 04/07/2008 Rev B

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

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp
Biorad Liquichek Unassayed Chemistry Control Product Insert

Biorad Liquichek Pediatric Control Product Insert

Frequently Asked Questions (March 2008) Dade Behring

**Updates:**

2/8/2016: Update alt tube types
9/14/2016: Protect from light update