
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 or Green (NaHep) 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 by using foil or an amber tube. Store refrigerated.

When protected from light, samples are stable for 8 hours at room temperature, at 2-8 degrees C for 1 week and at <-20 degrees C for 3 months.

Patient Preparation:

Remove photo therapy prior to sample collection.

Sample Rejection:

Unlabeled or mislabeled specimens

Interpretive**Reference Range:**

Total	
Age:	Range (mg/dL):
0 – 14 days	0.2 – 16.6
15 – 364 days	0.1 – 0.7
1 – 8 years	0.1 – 0.4
9 – 11 years	0.1 – 0.6
12 – 14 years	0.1 – 0.7
15 – 18 years	0.1 – 0.8
Adult	0.2 – 1.2
Direct	
0 – 14 days	0.3 – 0.7
15 – 364 days	0.1 – 0.3
1 – 8 years	0.1 – 0.2
9 – 12 years	0.1 – 0.3
13 – 18 years	0.1 – 0.4
Adult	0.0 – 0.5

Critical Values:

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

Limitations:

Hemolysis of the sample falsely decreases the direct bilirubin result.
Exposure to light rapidly and significantly decreases bilirubin.

Methodology:

Total: Diazonium Salt
Direct: Diazo reaction

References:

Frequently Asked Questions (March 2008) Dade Behring

Biorad Liquichek Pediatric Control Product Insert

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

Updates:

2/8/2016: Update alt tube types

9/14/2016: Protect from light update

9/23/2020: Updated specimen stability info.

11/9/2020: Removed method VISTA method retired, updated for metho
Alinity, containers