

TEST CHANGE – METHODOLOGY

Notification Date: 3/31/25

Effective Date: 4/16/25

Test Name: Bilirubin, Direct, Serum or Plasma

Test ID: LAB52, LAB20

Explanation: On the effective date, Bilirubin, Direct will be updated to the Doumas methodology at Vanderbilt Medical Laboratories at MetroCenter. Note: Under the influence of intense blue light in vivo (e.g., phototherapy), circulating bilirubin is partly transformed into a water-soluble isomer called photobilirubin, a potential substrate for bilirubin tests. This photobilirubin fraction is rapidly eliminated in vivo but is detected by this test and may lead to falsely increased direct bilirubin results.

Current Method – Vanderbilt Hospital Laboratory

Diazo – Jendrassik-Groff Method

New Method – Vanderbilt Medical Laboratories at MetroCenter

Diazo – Doumas Method

Current Measurement Range

0.2 – 20 mg/dL

New Measurement Range

0.2 – 27.6 mg/dL

Current Reference Value

Male:

0 - < 15 Days: 0.3 – 0.5 mg/dL
 15 Days - < 1 Year: 0.0 – 0.2 mg/dL
 1 Years - < 9 Years: 0.0 – 0.1 mg/dL
 9 Years - < 13 Years: 0.0 – 0.2 mg/dL
 13 Years - < 18 Years: 0.1 – 0.3 mg/dL
 ≥ 18 Years: 0.0 – 0.3 mg/dL

Female:

0 - < 15 Days: 0.3 – 0.5 mg/dL
 15 Days - < 1 Year: 0.0 – 0.2 mg/dL
 1 Years - < 9 Years: 0.0 – 0.1 mg/dL
 9 Years - < 13 Years: 0.0 – 0.2 mg/dL
 13 Years - < 18 Years: 0.0 – 0.3 mg/dL
 ≥ 18 Years: 0.0 – 0.3 mg/dL

New Reference Value

0 – < 15 Days: 0.3 – 0.7 mg/dL
 15 Days – < 1 Year: 0.1 – 0.3 mg/dL
 1 Year - < 9 Years: 0.1 – 0.2 mg/dL
 9 Years - < 13 Years: 0.1 – 0.3 mg/dL
 13 Years - < 19 Years: 0.1 – 0.4 mg/dL
 > 19 Years: 0.0 – 0.5 mg/dL

Questions: Please get in touch with Vanderbilt Medical Laboratories Customer Service at 615-875-5227 (5-LABS) or 800-551-5227 or visit our website: [Home | Vanderbilt Medical Laboratories \(vumc.org\)](https://www.vumc.org)