

ABSTRAK

PROFIL *BILIRUBIN* PADA PASIEN PENDERITA *THALASSEMIA* DI RUMAH SAKIT DAERAH IDAMAN BANJARBARU TAHUN 2022

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Thalassemia adalah penyakit darah genetik yang paling umum di dunia dan bervariasi dalam kelompok populasi yang berbeda di dunia. Penderita *Thalassemia* yang mendapat transfusi reguler dapat terjadi hemokromatosis, yaitu penumpukan besi pada sel-sel hati. Hati adalah tempat utama dari penyimpanan besi dan satu-satunya tempat untuk sintesis transferrin dan ferritin. Jika terjadi kerusakan pada sel hati secara terus-menerus, maka semakin terganggu pula fungsi hati dalam pembentukan *bilirubin*. *Bilirubin* merupakan produk utama dari penguraian sel eritrosit yang tua. Pada pasien *thalassemia* menderita jumlah *bilirubin* yang tinggi dalam darah karena peningkatan penghancuran sel darah merah. Tujuan penelitian ini mengetahui Kadar *Bilirubin* pada pasien penderita *Thalassemia* berdasarkan awal transfusi dan lama transfusi di Rumah Sakit Daerah Idaman Banjarbaru pada tahun 2022. Jenis penelitian *survey deskriptif* dengan teknik *Purposive sampling*, populasi pasien penderita *Thalassemia* sebanyak 28 responden. Pemeriksaan kadar *Bilirubin* menggunakan alat Biosystems BA200 dengan metode *Dichlorophenyl Diazonium*. Hasil penelitian kadar *Bilirubin Indirect*, didapatkan hasil perhitungan mean 1,46 mg/dL, nilai tertinggi 4,20 mg/dL, dan nilai terendah 0,25 mg/dL. Hasil pemeriksaan *Bilirubin Indirect* normal sebanyak 12 responden (42,9%) dan meningkat sebanyak 16 responden (57,1%). Kadar *Bilirubin Direct* didapatkan hasil perhitungan mean 0,41 mg/dL, nilai tertinggi 0,71 mg/dL, dan nilai terendah 0,14 mg/dL. Hasil pemeriksaan kadar *Bilirubin Direct* normal sebanyak 1 responden (3,6%) dan meningkat sebanyak 27 responden (96,4%). Kadar *Bilirubin Total* didapatkan hasil perhitungan mean 1,87 mg/dL, nilai tertinggi 4,89 mg/dL, dan nilai terendah 0,49 mg/dL. Hasil pemeriksaan kadar *Bilirubin Total* normal sebanyak 11 responden (39,3%) dan meningkat sebanyak 17 responden (60,7%).

Kata kunci : *Bilirubin Total, Direct, Indirect, Thalassemia Mayor*

ABSTRACT

BILIRUBIN PROFILE OF THALASSEMIA PATIENTS IN THE BANJARBARU IDAMAN REGIONAL HOSPITAL IN 2022

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Thalassemia is the most common genetic blood disease in the world and varies in different population groups in the world. Patients with thalassemia who receive regular transfusions can occur hemochromatosis, namely the accumulation of iron in liver cells. The liver is the main site of iron storage and the only site for the synthesis of transferrin and ferritin. If there is damage to liver cells on an ongoing basis, then the liver function in the formation of bilirubin will also be disrupted. Bilirubin is the main product of the breakdown of old erythrocytes. In thalassemia patients suffer from high amounts of bilirubin in the blood due to increased destruction of red blood cells. The purpose of this study was to determine Bilirubin levels in patients with thalassemia based on the initial transfusion and duration of transfusion at the Idaman Regional Hospital Banjarbaru in 2022. In this type of descriptive survey research with a purposive sampling technique, the population of patients with thalassemia has as many as 28 respondents. Bilirubin level examination using the Biosystems BA200 device with the Dichlorophenyl Diazonium method. The results of the study of Indirect Bilirubin levels obtained the calculation results of the mean of 1.46 mg/dL, the highest value of 4.20 mg/dL, and the lowest value of 0.25 mg/dL. The results of normal Indirect Bilirubin examination were 12 respondents (42.9%) and increased by 16 respondents (57.1%). Direct Bilirubin levels were calculated with a mean of 0.41 mg/dL, the highest value of 0.71 mg/dL, and the lowest value of 0.14 mg/dL. The results of the examination of normal levels of Direct Bilirubin were 1 respondent (3.6%) and increased by 27 respondents (96.4%). Total Bilirubin levels were calculated as mean 1.87 mg/dL, the highest value 4.89 mg/dL, and the lowest value 0.49 mg/dL. The results of the examination of normal total bilirubin levels were 11 respondents (39.3%) and increased by 17 respondents (60.7%).

Keywords: *Total Bilirubin, Direct, Indirect, Thalassemia Major*