

ABSTRAK

Latar Belakang : Pemeriksaan bilirubin direk merupakan pemeriksaan laboratorium yang digunakan untuk mendiagnosa kelainan pada organ hati. Metode *Jendrassik-Groff* merupakan metode pemeriksaan bilirubin direk dengan waktu inkubasi reagen terhadap serum yaitu tepat 5 menit. Namun, jika waktu inkubasi yang dilakukan setelah penambahan DSA (*Diazotized Sulphanilic Acid*) melebihi batas waktu, akan berpengaruh pada kadar bilirubin direk. Maka dari itu, dilakukan penelitian apakah ada pengaruh yang signifikan berdasarkan lama waktu inkubasi terhadap kadar bilirubin direk.

Tujuan Penelitian : Penelitian ini bertujuan untuk mengetahui apakah ada pengaruh lama waktu inkubasi selama 5, 10 dan 15 menit terhadap kadar bilirubin direk.

Metode Penelitian : Penelitian ini merupakan penelitian observasional analitik dengan desain penelitian *posttest only control group desain*. Sampel penelitian berasal dari 30 responden. Kemudian dilakukan pemeriksaan kadar bilirubi direk dengan variasi lama waktu inkubasi selama 5, 10 dan 15 menit. Hasil pemeriksaan kadar bilirubin direk dilakukan analisis secara statistik, uji normalitas data menggunakan *shapiro-wilk* dan dilanjutkan uji *repeated measure anova*.

Hasil Penelitian : Hasil penelitian menunjukkan rata-rata kadar bilirubin direk dengan waktu inkubasi 5 menit sebesar 0,105 mg/dl, inkubasi 10 menit sebesar 0,190 mg/dl dan 15 menit sebesar 0,274 mg/dl. Selanjutnya dilakukan uji normalitas data menggunakan *shapiro-wilk* mendapatkan hasil normal dan dilanjutkan dengan uji *repeated measure anova* yang mendapat nilai *Greenhouse-Geisser* 0,000 sehingga hasil tersebut menyatakan bahwa H_0 ditolak.

Kesimpulan : Ada pengaruh lama waktu inkubasi selama 5, 10 dan 15 menit metode pemeriksaan *Jendrassik-Groff* setelah penambahan DSA (*Diazotized Sulphanilic Acid*) terhadap kadar bilirubin direk

Kata kunci : Kadar Bilirubin Direk, Lama Inkubasi.

ABSTRACT

Introduction : Direct bilirubin examination is one of the laboratory tests used to diagnose abnormalities in the liver. The *Jendrassik-Groff* method is a direct bilirubin examination method that uses a procedure in which the reagent incubation time to serum is not so long, which is exactly 5 minutes. However, if the incubation time after the addition of DSA (*Diazotized Sulphanilic Acid*) exceeds the set time limit, it may have an effect on the direct bilirubin level. Therefore, it is necessary to research whether there is a significant effect based on the length of incubation time on direct bilirubin levels.

Objective : This study aims to determine whether there is an effect of incubation time of 5, 10 and 15 minutes on direct bilirubin levels.

Method : This study was an analytic observational study with a *posttest only control group design*. The research sample came from 30 respondents. Then the direct examination of bilirubi levels was carried out with variations in the length of incubation for 5, 10 and 15 minutes. The results of direct examination of bilirubin levels were analyzed statistically, data normality test used *shapiro-wilk* and continued with tests *repeated measure anova*.

Result : The results showed that the average level of direct bilirubin with an incubation time of 5 minutes was 0.105 mg/dl, 10 minutes of incubation was 0.190 mg / dl and 15 minutes was 0.274 mg/dl. Furthermore, the data normality test was carried out using *shapiro-wilk* to get normal results and continued with a *repeated measure anova* test which received a *Greenhouse-Geisser* value of 0,000 so that the results stated that H_0 was rejected.

Conclusion : There was an effect of incubation time for 5, 10 and 15 minutes on direct bilirubin levels after the addition of DSA in samples with normal bilirubin levels using the examination method *Jendrassik-Groff*.

Keywords : Direct Bilirubin, Incubation Time.