

## PERBEDAAN KADAR BILIRUBIN DIREK SAMPEL SERUM TANPA DAN DENGAN PENGECERAN

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### ABSTRAK

*Pemeriksaan bilirubin pada bayi ikterik bertujuan untuk mengevaluasi hepatobilier dan eritropoetik, menunjukkan diagnosis ikterus serta memonitor progresifitasnya. Pemeriksaan bilirubin pada bayi baru lahir membutuhkan keahlian khusus dalam pengambilan darah. Volume darah yang diperoleh seringkali tidak mencukupi. Pemeriksaan kadar bilirubin direk metode enzimatik membutuhkan 500 µL serum setiap pemeriksaan. Apabila volume serum tidak mencukupi dilakukan pengenceran menggunakan NaCl 0,9%. Tujuan penelitian adalah untuk mengetahui adanya perbedaan kadar bilirubin direk sampel serum tanpa dan dengan pengenceran. Penelitian kadar bilirubin dengan pengenceran serum menggunakan NaCl 0,9% 1:5 perlu dilakukan. Jenis penelitian analitik dengan pendekatan cross sectional. Kadar bilirubin direk tanpa pengenceran 0,41-0,95 mg/dL rerata 0,62 mg/dL, dengan pengenceran 0,48 -2,04 mg/dL, rerata 1,23 mg/dL. Uji beda Paired t Test diperoleh  $p = 0,000$  ( $p < 0,05$ ) yang berarti ada perbedaan kadar bilirubin direk tanpa dan dengan pengenceran. Hasil penelitian kadar bilirubin direk disimpulkan sampel serum dengan pengenceran reaksi enzimatik yang terjadi belum optimal sehingga hasil pemeriksaan mengalami perbedaan bermakna dengan serum tanpa pengenceran.*

*Kata kunci : kadar bilirubin direk, pengenceran, NaCl 0,9%*

### ABSTRACT

*Bilirubin examination on jaundice baby aims to evaluate hepatobiliary and erythropoetic, it shows jaundice diagnosis and monitor its progression. Bilirubin examination in newborn requires special expertise in blood collection. The blood volume obtained often insufficient. The examination of direct bilirubin level with enzymatic method requires 500 µL of serum per examination. If the serum volume is insufficient, dilution is done using 0.9% NaCl. The research goal was to know the difference of direct bilirubin level on serum sample without dilution and with dilution. Research on bilirubin level with serum dilution was using 0.9% NaCl 1: 5 needs to be done. The research type was analytic with cross sectional approach. Direct bilirubin level without dilution was 0,41-0,95 mg / dL, average 0,62 mg / dL, with dilution was 0,48 -2,04 mg / dL, average 1,23 mg / dL. Different test of Paired t Test obtained  $p = 0,000$  ( $p < 0.05$ ) which means there are difference in direct bilirubin level without dilution and with dilution. The result of direct bilirubin level was concluded that serum sample with dilution of enzymatic reaction which had occurred was not optimal so that the examination result experienced significant difference with serum without dilution.*

*Keywords: direct bilirubin level, dilution, 0,9% NaCl*