

INTERFERENSI VARIASI KONSENTRASI VITAMIN C TERHADAP KADAR KREATININ SERUM METODE *JAFFE* *REACTION*

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ABSTRAK

Pemeriksaan kreatinin merupakan salah satu pemanfaatan pemeriksaan laboratorium klinik dalam menegakan diagnosis kerusakan ginjal. Metode pemeriksaan kreatinin yang paling banyak digunakan adalah metode *jaffe reaction*. Pada pemeriksaan kreatinin metode *Jaffe Reaction* ada beberapa faktor yang bisa menjadi zat pengganggu terhadap hasil pemeriksaan sampel. Diantaranya adalah Vitamin C, bilirubin total, hemoglobin, glukosa dan protein. Tujuan penelitian ini untuk mengetahui kadar Vitamin C yang dapat mengganggu kadar kreatinin serum metode *Jaffe Reaction*. Jenis dan desain penelitian ini merupakan penelitian eksperimen dengan pendekatan One-group pra-post test design dengan menilai hubungan sebab akibat dengan adanya intervensi yaitu ditambahkannya Vitamin C pada *pooled sera* yang sebelumnya sudah dilakukan pemeriksaan Kadar kreatinin. Penelitian ini dilakukan di Laboratorium Kimia Klinik Jurusan Teknologi Laboratorium Medis Politeknik Kesehatan Kemenkes Bandung. Waktu penelitian dilaksanakan pada Mei 2024. Hasil penelitian ini menggunakan *Statistical Product and Service Solutions* (SPSS) dengan uji statistika untuk perbandingan lebih dari dua kelompok data berpasangan yaitu uji *Generalized Linear Model* (GLM). Berdasarkan hasil Uji GLM *repeated measured*. Didapatkan Nilai Sig. 0,001 yang artinya terdapat perbedaan yang signifikan. Kesimpulan dari penelitian ini adalah Kadar Vitamin C yang dapat mengganggu kadar kreatinin serum mulai dari konsentrasi 20 mg.

Kata kunci: Interferensi, Vitamin C, Kadar Kreatinin, *Jaffe Reaction*

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ABSTRACT

Creatinine examination is one of the uses of clinical laboratory examinations in diagnosing kidney damage. The most widely used creatinine examination method is the Jaffe reaction method. When examining creatinine using the Jaffe Reaction method, there are several factors that can interfere with the results of the sample examination. Among them are Vitamin C, total bilirubin, hemoglobin, glucose and protein. The aim of this study was to determine Vitamin C levels that could interfere with serum creatinine levels using the Jaffe Reaction method. The type and design of this research is experimental research with a one-group pre-post test design approach by assessing the causal relationship with the intervention, namely the addition of Vitamin C to pooled sera which has previously been examined for creatinine levels. This research was conducted at the Clinical Chemistry Laboratory, Department of Medical Laboratory Technology, Health Polytechnic, Ministry of Health, Bandung. The research was carried out in May 2024. The results of this research used Statistical Product and Service Solutions (SPSS) with statistical tests for comparing more than two groups of paired data, namely the Generalized Linear Model (GLM) test. Based on the results of the GLM repeated measured test. Obtained Sig Value. 0.001, which means there is a significant difference. The conclusion of this study is that Vitamin C levels can interfere with serum creatinine levels starting from a concentration of 20 mg.

Key words: Interference, Vitamin C, Creatinine Levels, Jaffe Reaction