

ABSTRAK

Latar Belakang: Ketepatan hasil pemeriksaan sedimen urine dipengaruhi oleh kualitas spesimen, termasuk lamanya waktu antara pengambilan sampel dan proses pemeriksaan. *Clinical and Laboratory Standard Institute* (CLSI) merekomendasikan pemeriksaan urine dilakukan tidak lebih dari 2 jam setelah pengambilan sampel. Pemeriksaan urine di laboratorium sering kali mengalami penundaan. Penyimpanan urine pada suhu ruang dalam waktu yang terlalu lama dapat menyebabkan perubahan komposisi pada urine. Apabila pemeriksaan tidak dapat dilakukan dalam waktu 2 jam, urine dapat disimpan pada suhu 2 – 8°C.

Tujuan Penelitian: Untuk mengetahui perbedaan hasil pemeriksaan sedimen eritrosit yang segera diperiksa dan disimpan 8 jam pada suhu 2 – 8°C.

Metode Penelitian: Jenis penelitian adalah *Pre-Experimental Design* dengan desain penelitian *Static Group Comparison*. Penelitian ini menggunakan 36 sampel urine normal yang dikondisikan menjadi positif eritrosit dibagi menjadi dua kelompok perlakuan, yaitu diperiksa segera dan disimpan 8 jam pada suhu 2 – 8°C. Hasil pemeriksaan sedimen tersebut diperiksa dengan metode manual mikroskop.

Hasil Penelitian: Hasil penelitian secara deskriptif menunjukkan bahwa sebanyak 8 sampel atau 22,2% terjadi penurunan tingkat kepositifan eritrosit. Berdasarkan hasil analisis yang dilakukan diperoleh nilai *Asymp. Sig* 0,005 yang lebih kecil dari 0,05 yang berarti ada perbedaan yang bermakna antara hasil pemeriksaan eritrosit sedimen urine yang segera diperiksa dan setelah penyimpanan selama 8 jam pada suhu 2 – 8°C.

Kesimpulan: Urine dengan penyimpanan 8 jam pada suhu 2 – 8°C tidak dapat digunakan untuk pemeriksaan sedimen eritrosit. Terdapat perbedaan yang signifikan hasil pemeriksaan eritrosit pada sedimen urine yang segera diperiksa dan disimpan 8 jam pada suhu 2 – 8°C.

Kata Kunci: Eritrosit, Sedimen Urine, Penyimpanan, Suhu

ABSTRACT

Background: The accuracy of urine sediment examination is influenced by specimen quality, including the time interval between sample collection and laboratory analysis. The Clinical and Laboratory Standards Institute (CLSI) recommends that urine examination be performed no later than 2 hours after sample collection. Urine examinations in laboratories often experience delays. Prolonged storage of urine at room temperature can lead to alterations in its composition. If examination cannot be performed within 2 hours, urine can be stored at a temperature of 2–8°C.

Objective: To determine the differences in erythrocyte sediment examination results between samples examined immediately and those stored for 8 hours at 2–8°C.

Methods: This study used a Pre-Experimental Design with a Static Group Comparison research design. The study used 36 normal urine samples that were conditioned to be erythrocyte-positive and divided into two treatment groups, examined immediately and stored for 8 hours at 2–8°C. The sediment examination results were analyzed using the manual microscope method.

Results: Descriptive results showed that 8 samples or 22.2%, showed a decrease in erythrocyte positivity levels. Based on the analysis conducted, an Asymp. Sig value of 0.005 was obtained, which is less than 0.05, meaning there is a significant difference between the erythrocyte sediment examination results of urine examined immediately and those stored for 8 hours at 2–8°C.

Conclusion: Urine stored for 8 hours at 2–8°C are not suitable for erythrocyte sediment examination. There is a significant difference in erythrocyte examination results between urine sediment examined immediately and those stored for 8 hours at 2–8°C.

Keywords: Erythrocytes, Urine Sediment, Storage, Temperature