

**PENGARUH LAMA SIMPAN KANTONG DARAH DONOR  
PADA SUHU 2-6°C TERHADAP KADAR HEMOGLOBIN  
SEBELUM TRANSFUSI DARAH**

Suminingsih<sup>1</sup>, Tulus Ariyadi<sup>2</sup>, Andri Sukeksi<sup>2</sup>

1. Program Studi D IV Analis Kesehatan Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.
2. Laboratorium Patologi Klinik Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.

**ABSTRAK**

Penyediaan darah yang aman sangat diperlukan guna menunjang pengobatan penderita lewat transfusi darah sehingga didapatkan hasil yang optimal. Kantong darah lengkap diterima Bank Darah RS Umum Salatiga dengan label tanggal kadaluwarsa darah. Masa simpan darah 35 hari dimulai sejak *aftaf* (pengambilan darah) di UDD PMI, darah sampai di BDRS dengan umur darah sudah lebih dari 6 hari. Kantong darah dikeluarkan dari lemari es diusahakan sesuai dengan tanggal masuknya (FEFO). Penyimpanan darah harus dijaga pada suhu 2°-6°C. Hemolisis meningkat dengan waktu penyimpanan dan suhu, ditunjukkan dengan adanya hemoglobin pada plasma donor sebagai akibat suhu yang salah selama pengiriman, penyimpanan atau kesalahan penanganan saat donasi donor. Tujuan penelitian untuk mengetahui pengaruh lama simpan kantong darah terhadap kadar hemoglobin di Bank Darah RSU Salatiga. Jenis penelitian analitik dengan desain *eksperimental quasi modifikasi Time Series Design Non randomized pretest-posttest control group*. Hasil penelitian rerata kadar hemoglobin kantong darah segar, hari ke-7, 14, 21, 28 dan 35 secara berturut-turut adalah 13,7 g/dl, 13,7 g/dl, 13,8 g/dl, 13,8 g/dl, 13,9 g/dl, dan 13,9 g/dl. Uji statistik dengan Kruskal Wallis diperoleh hasil  $p>0,01$ , yang berarti tidak ada pengaruh lama simpan kantong darah donor suhu 2-6°C sampai hari ke-35.

Kata kunci : kadar hemoglobin, lama simpan, suhu

**THE EFFECT OF DONOR BLOOD BAG SAVE DURATION AT 2-6°C  
TEMPERATURE TOWARDS HEMOGLOBIN LEVEL  
BEFORE BLOOD TRANSFUSION**

Suminingsih<sup>1</sup>, Tulus Ariyadi<sup>2</sup>, Andri Sukeksi<sup>2</sup>

1. Study Program of D IV Health Analyst Faculty of Nursing and Health University of Muhammadiyah Semarang.
2. Clinical Pathology Laboratory Faculty of Nursing and Health Sciences University of Muhammadiyah Semarang.

**ABSTRACT**

Blood provision which safe is necessary to support the patients treatment through blood transfusion to obtain the optimal result. The complete blood bag was received by Blood Bank of RS Umum Salatiga with blood expiration date label. The 35-day blood save duration starts from aftaf (blood taking) on UDD PMI, blood arrived on BDRS with blood ages more than 6 days. Blood bags removed from the refrigerator were arranged according to its entry date (FEFO). Blood storage should be maintained at temperature of 2°-6°C. Hemolysis increases with storage and temperature time, indicated by the hemoglobin existence in donor plasma as result of incorrect temperature during delivery, storage or mismanagement when donor donation. The research goal is to know the effect of blood bag save duration towards hemoglobin level on Blood Bank of RSU Salatiga. The research type is analytic with design of experimental quasi modification Time Series Design Non-randomized pretest-posttest control group. The research result was average of fresh blood bag hemoglobin level 13.70 g/dl, 7th day was 13,72 g / dl, 14th day was 13,78 g / dl, 21st day was 13,80 g / dl, 28th day was 13.86 g / dl, and 35th day of 13.94 g / dl. The statistic test with Kruskal Wallis was obtained result  $p>0,01$ , which means there was no effect of donor blood bag save duration at 2-6°C temperature until 35th day.

**Keywords:** hemoglobin level, save duration, temperature