

HUBUNGAN JUMLAH TROMBOSIT DONOR TERHADAP JUMLAH TROMBOSIT, *PLATELET CRIT*, *PLATELET DISTRIBUTION WIDTH*, DAN *MEAN PLATELET VOLUME* PRODUK *THROMBOCYTE CONCENTRATE* DI PMI BANYUMAS

ABSTRAK

Latar Belakang – *Thrombocyte concentrate* (TC) adalah produk darah yang diberikan pada pasien dengan jumlah trombosit rendah. Kualitas produk akan memengaruhi peningkatan jumlah trombosit pasien secara optimal. Jumlah trombosit, *platelet crit* (PCT), *platelet distribution width* (PDW) dan *mean platelet volume* (MPV) merupakan parameter penting untuk melihat kualitas TC. Penelitian ini dilakukan untuk mengetahui hubungan jumlah trombosit dengan kualitas TC yang dilihat dari parameter jumlah trombosit dan indeks trombosit (PCT, PDW, MPV) pada pendonor di PMI Banyumas.

Tujuan – Melihat hubungan jumlah trombosit donor dengan kualitas TC yang dilihat dari jumlah trombosit, PCT, PDW, MPV produk TC di PMI Banyumas.

Metode – Penelitian ini merupakan penelitian analitik observasional dengan pendekatan *cross-sectional* yang dilakukan pada pendonor di PMI Banyumas pada bulan Oktober-November tahun 2022. Analisis data dilakukan menggunakan uji korelasi *Pearson*. Total sampel yang didapatkan adalah 56 subyek berjenis kelamin laki-laki.

Hasil – Penelitian menunjukkan terdapat hubungan bermakna antara jumlah trombosit donor dengan jumlah trombosit ($r=0,289$ dan $p=0,031$), PDW ($r=0,339$ dan $p=0,011$) maupun MPV ($r=0,358$ dan $p=0,007$) produk TC, dan tidak terdapat hubungan antara jumlah trombosit donor dengan PCT ($r=0,231$ dan $p=0,087$).

Kesimpulan – Terdapat hubungan antara jumlah trombosit donor dengan jumlah trombosit, PDW, dan MPV produk TC. Tidak terdapat hubungan antara jumlah trombosit donor dengan PCT.

Kata Kunci: *thrombocyte concentrate*, jumlah trombosit, *platelet crit*, *platelet distribution width*, dan *mean platelet volume*

**CORRELATION BETWEEN PLATELET COUNT OF DONOR TO
PLATELET COUNT, PLATELET CRIT, PLATELET DISTRIBUTION
WIDTH, AND MEAN PLATELET VOLUME OF THROMBOCYTE
CONCENTRATE PRODUCTS AT PMI BANYUMAS**

ABSTRACT

Background – Thrombocyte concentrate (TC) is a blood product given to patients with low platelet counts. Product quality will affect the optimal increase in the patient's platelet count. Platelet count, platelet crit (PCT), platelet distribution width (PDW) and mean platelet volume (MPV) are important parameters to determine the quality of the TC. This study was conducted to determine the correlation between platelet count and TC quality as seen from the parameters of platelet count and platelet index (PCT, PDW, MPV) in donors at PMI Banyumas.

Objectives – See the correlation between the number of donor platelets and the quality of the platelet concentrated as seen from the platelets count, PCT, PDW and MPV of platelet concentrate product at PMI Banyumas.

Methods – The research was an observational analytic study with a cross-sectional approached which was conducted on donors at PMI Banyumas in October-November 2022. Data analysis was carried out using the Pearson correlation test. The total sample obtained was 56 male subjects.

Results – The study showed that there is a correlation between donor platelet count and platelet count ($r=0.289$ and $p=0.031$), PDW ($r=0.339$ and $p=0.011$) and MPV ($r=0.358$ and $p=0.007$) of TC product, and there is no correlation between donor platelet count and PCT ($r=0.231$ and $p=0.087$).

Conclusion – There are a correlation between donor platelet count and platelet count, PDW, and MPV of TC product. There is no correlation between donor platelet count and PCT.

Keywords: thrombocyte concentrate, platelet count, platelet crit, platelet distribution width, and mean platelet volume