

## ABSTRAK

### **Perbedaan Kadar Kolesterol Total Menggunakan Darah Kapiler dengan dan tanpa Hapusan Kapas Kering Metode *Point of Care Testing***

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Pemeriksaan kolesterol total sering dilakukan menggunakan metode *point of care testing* (POCT) karena praktis dan hanya membutuhkan sedikit sampel darah kapiler. Namun, pada tahap pra-analitik pengambilan sampel darah kapiler sering terjadi kesalahan yang berkontribusi 60-70% dari total kesalahan. Salah satu kesalahan tersebut adalah tidak melakukan penghapusan tetesan darah pertama menggunakan kapas kering, sehingga sampel berpotensi tercampur cairan jaringan dan residu alkohol yang dapat mempengaruhi hasil pemeriksaan. Penelitian ini bertujuan untuk mengetahui perbedaan kadar kolesterol total menggunakan darah kapiler dengan dan tanpa hapusan kapas kering metode *point of care testing*. Penelitian ini menggunakan desain pre-eksperimen dengan pemberian dua perlakuan yang berbeda pada responden yang sama. Jumlah responden sebanyak 31 yang dipilih dengan teknik total sampling. Hasil penelitian menunjukkan rerata kadar kolesterol total dengan hapusan kapas kering sebesar 168,38 mg/dl, sedangkan tanpa hapusan kapas kering sebesar 162,87 mg/dl. Hasil uji *Paired T-test* diperoleh *p-value* sebesar 0,011 ( $< \alpha = 0,05$ ), yang menunjukkan terdapat perbedaan kadar kolesterol total dengan dan tanpa hapusan kapas kering metode *point of care testing*. Perbedaan ini disebabkan oleh pengaruh cairan jaringan dan residu alkohol pada tetesan darah pertama yang tidak dihapus, sehingga dapat menurunkan konsentrasi komponen dalam darah, akibatnya kadar kolesterol total menjadi rendah dari kadar sebenarnya. Oleh karena itu, penerapan penghapusan tetesan darah pertama menggunakan kapas kering sesuai standar operasional prosedur sangat penting untuk memperoleh hasil pemeriksaan yang lebih akurat.

Kata kunci : Kolesterol Total, Kapas Kering, *Point Of Care Testing*

## ABSTRACT

### *Differences in Total Cholesterol Levels Using Capillary Blood with and without Dry Cotton Swab Point of Care Testing Method*

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*Total cholesterol testing is often done using the point of care testing (POCT) method because it is practical and requires only a small capillary blood sample. However, in the pre-analytical stage of capillary blood sampling, errors often occur which contribute 60-70% of the total errors. One such mistake is not removing the first drop of blood using a dry cotton swab, so the sample could potentially be mixed with tissue fluid and alcohol residues that could affect the test results. This study aims to determine the difference in total cholesterol levels using capillary blood with and without dry cotton removal point of care testing method. This study used a pre-experimental design with two different treatments given to the same respondents. The number of respondents was 31 who were selected using the total sampling technique. The results showed that the average total cholesterol level with dry cotton removal was 168.38 mg/dl, while without dry cotton removal was 162.87 mg/dl. The results of the Paired T-test obtained a p-value of 0.011 ( $< \alpha = 0.05$ ), which showed that there was a difference in total cholesterol levels with and without the removal of dry cotton from the point of care testing method. This difference is caused by the influence of tissue fluid and alcohol residues on the first drop of blood that is not removed, so that it can decrease the concentration of components in the blood, as a result of which the total cholesterol level becomes lower than the actual level. Therefore, the application of the first blood drop removal using a dry cotton swab according to the standard operating procedure is very important to obtain more accurate examination results.*

**Kata kunci :** *Total Cholesterol, Dry Cotton, Point of Care Testing*