

**POLITEKNIK KESEHATAN TANJUNGPINANG
PROGRAM STUDI TEKNOLOGI LABORATORIUM MEDIS
PROGRAM DIPLOMA TIGA**

Karya Tulis Ilmiah, Juli 2022

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Uji Daya Hambat *Hand Sanitizer Spray* terhadap Bakteri *Escherichia coli* ATCC 25922

xv + 29 halaman, 4 gambar, 6 tabel, dan 11 lampiran

ABSTRAK

Hand sanitizer spray merupakan cairan antiseptik beredar luas di masyarakat banyak produk *hand sanitizer spray* beredar tanpa uji laboratorium, tidak ada informasi kandungan pada kemasan, beberapa produk hanya mengutamakan keestetikaan. Kandungan alkohol pada *hand sanitizer* dapat menghambat bakteri, bakteri *Escherichia coli* merupakan bakteri yang menyebabkan diare bakteri ini mudah berkembang biak dapat ditemukan pada air yang terkontaminasi. Tujuan penelitian mengetahui efektivitas *hand sanitizer spray* berdasarkan produk yang diujikan terhadap bakteri *Escherichia coli* ATCC 25922. Jenis penelitian eksperimen dengan desain penelitian *cross sectional*. Populasi penelitian ini adalah *hand sanitizer spray* yang beredar diaplikasi belanja toko online. Sampel dalam penelitian ini 10 produk *hand sanitizer spray* yang sudah memenuhi kriteria sampel. Cara pengujian produk *hand sanitizer* menggunakan metode difusi cara Kirby Baur dengan 3 kali pengulangan. Hasil penelitian didapatkan bahwa 2 dari 10 produk *hand sanitizer spray* mampu menghambat pertumbuhan bakteri *Escherichia coli* ATCC 25922 yaitu *hand sanitizer spray* D (6,41 mm) dan H (6,24 mm). Hasil uji *one way Anova* didapat nilai $p < 0,05$ berarti produk *hand sanitizer spray* berpengaruh terhadap pertumbuhan bakteri *Escherichia coli* ATCC 25922, dilanjutkan uji beda nyata terkecil dengan hasil terdapat perbedaan nyata pada produk D dan H dengan 8 *hand sanitizer spray* lainnya.

Kata kunci: *Escherichia coli* ATCC 25922, *hand sanitizer spray*, uji daya hambat

Daftar Bacaan : 26 (2009-2022)

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Scientific Papers, Julyth 2022

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HAND SANITIZER SPRAY RESISTANCE TEST AGAINST *Escherichia coli* ATCC 25922

xv + 29 pages, 4 picture, 6 table, dan 11 attachment

ABSTRACT

Hand sanitizer spray is an antiseptic liquid that is widely circulated in the community, many hand sanitizer spray products are circulated without laboratory tests, there is no information on the contents on the packaging, some products only prioritize aesthetics. The alcohol content in hand sanitizers can inhibit bacteria, *Escherichia coli* bacteria are bacteria that cause diarrhea, these bacteria are easy to breed and can be found in contaminated water. The purpose of the study was to determine the effectiveness of hand sanitizer spray based on the product tested against *Escherichia coli* ATCC 25922. This type of research was experimental with a cross sectional research design. The population of this study is hand sanitizer spray circulating in online store shopping applications. The samples in this study were 10 hand sanitizer spray products that already met the sample criteria. How to test hand sanitizer products using the Kirby Baur diffusion method with 3 repetitions. The results showed that 2 out of 10 hand sanitizer spray products were able to inhibit the growth of *Escherichia coli* ATCC 25922 bacteria, namely hand sanitizer spray D (6.41 mm) and H (6.24 mm). The results of the one-way Anova test obtained p value <0.05, meaning that the hand sanitizer spray product had an effect on the growth of *Escherichia coli* ATCC 25922 bacteria, followed by the smallest significant difference test with the results that there were significant differences in products D and H with 8 other hand sanitizer sprays.

Keywords: *Escherichia coli* ATCC 25922, hand sanitizer spray, resistance test

Reading list : 26 (2009-2022)