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ABSTRAK

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Hubungan Sumber Air Baku, Kualitas Air Baku Dan Kualitas Desinfeksi Sinar Ultraviolet (UV) Dengan Kualitas Bakteriologis (*Coliform*) Air Minum Isi Ulang (Studi Pada Depot Air Minum Di Wilayah Kerja Uptd Puskesmas Cibeureum Kota Tasikmalaya)

Latar Belakang: Pemilihan produk Air Minum Isi Ulang sebagai alternatif pemenuhan kebutuhan air minum memiliki risiko dampak kesehatan jika produk tersebut tidak terjamin kualitas dan keamanannya, terutama dari kontaminasi bakteri *Coliform*. **Tujuan:** Untuk mengetahui hubungan sumber air baku, kualitas air baku dan kualitas desinfeksi sinar ultraviolet (UV) dengan kualitas bakteriologis (*Coliform*) air minum isi ulang pada Depot Air Minum (DAM) di Wilayah Kerja UPTD Puskesmas Cibeureum Kota Tasikmalaya. **Metode:** Metode penelitian menggunakan metode kuantitatif dengan pendekatan *cross sectional*. Sampel sebanyak 18 DAM.Teknik sampling dengan total sampling. Instrumen penelitian menggunakan lembar observasi dan kuesioner. Uji statistik menggunakan *chi square* pada taraf signifikansi $\alpha = 0{,}05$. **Hasil:** terdapat hubungan sumber air baku dengan kualitas bakteriologis (*Coliform*) air baku ($p = 0{,}050$), tidak terdapat hubungan sumber air baku dengan kualitas bakteriologis (*Coliform*) air minum ($p = 0{,}596$), tidak terdapat hubungan kualitas bakteriologis (*Coliform*) air baku dengan kualitas bakteriologis (*Coliform*) air minum ($p = 0{,}294$), terdapat hubungan waktu kontak lampu UV dengan kualitas bakteriologis (*Coliform*) air minum ($p = 0{,}022$), terdapat hubungan masa pemakaian lampu UV dengan kualitas bakteriologis (*Coliform*) air minum ($p = 0{,}047$), terdapat hubungan antara lama waktu pengisian air dengan kualitas bakteriologis (*Coliform*) air minum ($p = 0{,}044$). **Saran:** Bagi pemilik depot untuk memperbaiki kondisi sumber air baku dan meningkatkan kualitas proses desinfeksi dengan menyalakan lampu UV selama jam kerja, memakai lampu UV tidak lebih dari 3 tahun, dan mengisi air galon dengan lama waktu yang sesuai (≥ 75 detik).

Kata Kunci : sumber air baku, ultraviolet (UV), air minum isi ulang, *coliform*

ABSTRACT

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The Relation Of Raw Water Sources, Raw Water Quality and Ultraviolet (UV) Disinfection Quality With The Bacteriological Quality (*Coliform*) In Refill Drinking Water (Study on Drinking Water Depots in the UPTD Work Area of Cibeureum Health Center, Tasikmalaya City)

Background: Selection of refill drinking water products as an alternative to meet drinking water needs has a risk of health impacts if the quality and safety of the product is not guaranteed, especially from contamination with *Coliform* bacteria. **Purpose**: To determine the relationship between raw water sources, raw water quality and ultraviolet (UV) disinfection quality with bacteriological quality (*Coliform*) of refill drinking water at the Drinking Water Depot in the UPTD Working Area of Cibeureum Health Center, Tasikmalaya City. **Methods**: The research method uses quantitative methods with a cross sectional approach at the level of significance $\alpha = 0,05$. A sample of 18 Drinking Water Depot. Sampling technique with a total sampling. The research instrument used observation sheets and questionnaires. Statistical test using chi square. **Results**: there is a relationship between raw water source and bacteriological quality (*Coliform*) of raw water ($p = 0.050$), there is no relationship between raw water source and bacteriological quality (*Coliform*) of drinking water ($p = 0.596$), there is no relationship between bacteriological quality (*Coliform*) of water bacteriological quality (*Coliform*) of drinking water ($p = 0.294$), there is a relationship between UV lamp contact time and bacteriological quality (*Coliform*) of drinking water ($p = 0.022$), there is a relationship between the duration of use of UV lamps with bacteriological quality (*Coliform*) of drinking water ($p = 0.047$), there is a relationship between the length of time filling water with the bacteriological quality (*Coliform*) of drinking water ($p = 0.044$). **Recomendation**: For depot owners to improve the condition of raw water sources and improve the quality of the disinfection process by turning on UV lamps during working hours, using UV lamps for no more than 3 years, and filling gallons of water with the appropriate length of time (≥ 75 seconds).

Keyword: raw water source, ultraviolet (UV), refill drinking water, *coliform*