

ABSTRAK

Fenomena pencampuran sabun cuci tangan dengan air terjadi di kamar kecil Fakultas Kedokteran Universitas Islam Bandung. Mencuci tangan dengan sabun dapat memutus rantai penyebaran infeksi yang dapat ditularkan melalui tangan. Menurut *WHO Guideline of Hand Hygiene in Health Care*, faktor yang menunjang efektivitas mencuci tangan ialah agen sabun antiseptik yang digunakan, jumlah agen yang digunakan, serta durasi dan teknik dalam mencuci tangan. Penelitian ini bersifat eksperimental yang membandingkan efektivitas dari campuran sabun cuci tangan dengan konsentrasi 100%, 75%, 20%, hanya air. Sampel yang digunakan sebanyak 20 orang dengan enam kali pengulangan. Dengan metoda *finger tap* pada agar nutrisi sebelum dan sesudah mencuci tangan, kemudian dihitung jumlah koloni yang terbentuk. Lalu dibandingkan presentase penurunan jumlahnya menggunakan uji Post Hoc Wilcoxon. Hasil perhitungan menunjukkan adanya penurunan terhadap jumlah bakteri setelah mencuci tangan dibandingkan sebelum mencuci tangan baik pada konsentrasi 100%, 75%, 20% sabun, maupun kontrol negatif dengan presentase penurunan rata-rata 66,1%, 54,3%, 42,5%, dan 36,7% dan rata-rata jumlah koloni sebelum mencuci tangan adalah 44,4, 56,2, 59,9, 66,1 sedangkan setelah mencuci tangan adalah 12,9, 17,8, 27,3, 31,7. Berdasarkan uji Post Hoc Wilcoxon didapati hasil nilai $z \leq 0,05$ sehingga H_0 ditolak artinya terdapat penurunan yang bermakna antara data jumlah bakteri sebelum dengan jumlah bakteri sesudah mencuci tangan. Dapat ditarik kesimpulan bahwa *effective dose* tercapai pada konsentrasi 100% dan 75%.

Kata Kunci: Koloni bakteri, Sabun cuci tangan

Abstract

The phenomenon of mixing hand washing soap with water occurs in the toilet of the Faculty of Medicine, Bandung Islamic University. Washing hands with soap can break the distribution chain of infections that can be transmitted through the hands. According to World Health Organization Hand Hygiene Guidelines in Health Care, factors that support cleanliness of handwashing are antiseptic soap agents used, the quantity of agents used, also the duration and techniques in handwashing. It is an experimental study comparing the effectiveness of hand washing soap with a concentration of 100%, 75%, 20%, and water only. The sample used was twenty people with six repetitions. With the fingertap method on nutrient agar before and after handwashing, the number of colonies formed was counted. The percentage reduction were compared using the Wilcoxon Post Hoc analysis. The result shows decrease in the number of bacteria after washing hands compared to before washing hands at a soap concentration of 75%, 20%, 100% and water only. With the averages percentage reduction 66,1%, 54.3%, 42.5%, and 36,7% and the averages of colony numbers before handwashing are 44,4, 56,2, 59,9, 66,1 and 12,9, 17,8, 27,3, 31,7 after handwashing. Based on the Post Hoc Wilcoxon analysis, the z value was ≤ 0.05 so H_0 was rejected which means there was a significant decrease between the number of bacterial colony before and after washing hands. It can be concluded that the effective dose only works on 100% and 75% concentration of soaps.

Keywords: Bacterial colony, Hand soap