

INTISARI

Latar Belakang: Infeksi nosokomial masih banyak terjadi di rumah sakit. Kejadian infeksi nosokomial dipengaruhi oleh tiga hal yang berkaitan, yaitu agen, pejamu dan lingkungan. Penyebab dari infeksi nosokomial salah satunya adalah mikroorganisme, yaitu bakteri. Bakteri patogen penyebab infeksi dapat ditularkan melalui tangan tenaga kesehatan dan lingkungan sekitar. Untuk memutus transmisi bakteri, cara yang dapat dilakukan adalah dengan menerapkan *hand hygiene*. *Hand hygiene* yang efektif dapat menurunkan angka kolonisasi bakteri. Namun, Sebagian besar tenaga kesehatan masih tidak patuh melakukan *hand hygiene*.

Tujuan Penelitian: Untuk mengetahui keefektifan *hand hygiene* tenaga kesehatan terhadap kolonisasi bakteri patogen pada lingkungan rumah sakit.

Metode: Mengulas artikel yang diperoleh dari *database Pubmed, Scopus, ClinicalKey, dan EBSCOhost* dari tahun 2015-2020 yang meneliti tentang *hand hygiene* oleh tenaga kesehatan dan efeknya terhadap kolonisasi bakteri patogen. Kata kunci yang digunakan adalah *healthcare workers OR healthcare professionals AND hand hygiene OR handwashing OR hand disinfection AND bacterial colonization AND environment*. Kriteria inklusi berupa artikel berbahasa Inggris, publikasi lima tahun terakhir, *free full text* dan desain penelitian berupa *systematic review, randomized control trials, cross-sectional, comparative clinical trial, dan observational study*.

Hasil: Didapatkan enam artikel. Dua diantaranya berupa *randomized controlled trial*, dua berupa *systematic review*, satu berupa *cross-sectional study*, dan satu berupa *comparative clinical trial*. Semua artikel menunjukkan hasil bahwa *hand hygiene* dapat memberikan efek berupa penurunan nilai hitung kolonisasi bakteri yang ada di tangan tenaga kesehatan. Penurunan dapat terjadi secara signifikan jika *hand hygiene* menggunakan cairan alcohol dan menerapkan metode enam langkah *hand hygiene* dari WHO.

Kesimpulan: *Hand hygiene* yang efektif memberikan dampak berupa penurunan jumlah kolonisasi bakteri yang terdapat pada tangan para tenaga kesehatan. Penggunaan cairan alcohol lebih efektif mengurangi kolonisasi bakteri pada tangan tenaga kesehatan daripada menggunakan sabun antimikroba dengan kandungan *triclosan, chlorhexidine* atau bahan antiseptik lainnya.

Kata kunci: infeksi nosokomial, *hand hygiene*, kolonisasi bakteri, tenaga kesehatan

ABSTRACT

Background: Nosocomial infections are still common in hospitals. The incidence of nosocomial infection is influenced by three related things, there are agent, host and environment. One of the causes of nosocomial infection is microorganisms, called bacteria. Pathogenic bacteria that caused infection can be transmitted through the hands of healthcare workers and the surrounding environment. To cut the transmission of bacteria, one way to do is to apply hand hygiene. Effective hand hygiene can reduce the number of bacterial colonization. However, most of the health workers still do not comply with hand hygiene.

Objective: To determine the effectiveness of healthcare workers' hand hygiene on the colonization of pathogenic bacteria in the hospital environment.

Methods: Reviewing articles obtained from the Pubmed, Scopus, ClinicalKey, and EBSCOhost databases from 2015 to 2020 that examine hand hygiene by healthcare workers and its effect on the colonization of pathogenic bacteria. The keywords used are healthcare workers OR healthcare professionals AND hand hygiene OR handwashing OR hand disinfection AND bacterial colonization AND environment. The inclusion criteria were articles in English, publication of the last five years, free full text and research designs in the form of systematic reviews, randomized control trials, cross-sectional, comparative clinical trials, and observational studies.

Result: There were six articles. Two of them were randomized controlled trials, two were systematic reviews, one was a cross-sectional study, and one was a comparative clinical trial. All articles show the results that hand hygiene can have an effect in the form of decreasing the number of bacterial colonization counts in the hands of health workers. The decrease can occur significantly if hand hygiene uses alcohol and applies the six steps hand hygiene method from WHO.

Conclusion: Effective hand hygiene has an impact in the form of decreasing the number of bacterial colonization found in the hands of healthcare workers. The use of alcohol gel is more effective in reducing bacterial colonization on the hands of healthcare workers than using antimicrobial soap containing triclosan, chlorhexidine or other antiseptic ingredients.

Key words: nosocomial infection, hand hygiene, bacterial colonization, healthcare workers.