



**Update on Management, Prevention, and Control
of Infectious Diseases in the Era of
Antimicrobial Resistance**



ABSTRACT BOOK

**The 1st International Scientific Meeting on
Clinical Microbiology and Infectious Diseases
(ISM-CMID),
10th National Congress of Indonesian Society
for Clinical Microbiology (KONAS-PAMKI),
12th National Symposium-Indonesian
Antimicrobial Resistance Watch
(NS-IARW)**

**October 10th - 14th, 2018
Surabaya - East Java, Indonesia**

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The Effectiveness of Cinnamon Bark (*Cinnamomum burmanii*) Infusion on Total Bacteria on Hand

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ABSTRACT

Infectious diseases caused by microbes frequently occur in Indonesia. One of prevention ways is maintaining hand hygiene practice. Utilization of natural material such as cinnamon bark (*Cinnamomum burmanii*) can be a promising natural hand sanitizer, since it has active compounds like cinnamic aldehyde and eugenol that act as antibacterial. This study aimed to determine the effectiveness of antibacterial of cinnamon bark (*Cinnamomum burmanii*) infusion on total bacteria on hands. The research design was experimental with one group pretest-posttest design. The colony count method was used in this study. The cinnamon bark infusion was made by heating simplicia with water at 90°C for 15 minutes. The results showed there were differences of bacterial colonies before and after using cinnamon bark infusion. The total bacterial colonies before using the cinnamon bark infusion was 179.4 ± 42.4 CFU/cm², while the total of bacterial colonies after using cinnamon bark 50% and 100% significantly decreased to 141 ± 35.2 CFU/cm² and 97 ± 27.7 CFU/cm² respectively. This study showed that cinnamon infusion has antibacterial against bacteria on hands. It could be possibly caused by the antibacterial compounds contained in cinnamon bark that can inhibit bacterial growth. It is concluded that cinnamon bark infusion may be used as an alternative natural hand sanitizers in community.

Keywords: Cinnamon bark, infusion, anti bacterial, colony count method
