

INTISARI

PAMUJININGTYAS., A, 2019, UJI AKTIVITAS ANTIBAKTER INFUSA DAUN SIRIH HIJAU (*Piper batle L.*) dan DAUN SIRIH MERAH (*Piper crocatum*) TERHADAP BAKTERI *Klebsiella Pneumoniae* ATCC 10031, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Daun sirih merah (*Piper crocatum*) dan daun sirih hijau (*Piper batle L.*) banyak digunakan pada pengobatan tradisional dan diketahui memiliki aktivitas antibakteri. Penelitian ini bertujuan untuk mengetahui aktivitas infusa daun sirih merah (*Piper crocatum*) dan daun sirih hijau (*Piper batle L.*) sebagai antibakteri terhadap bakteri *Klebsiella pneumoniae* ATCC 10031. Daun sirih hijau mengandung senyawa kimia minyak atsiri, sedangkan daun sirih merah mengandung senyawa kimia minyak atsiri dan alkaloid.

Infusa daun sirih merah dan daun sirih hijau menggunakan pelarut aquades, dengan cara direbus didalam panci infusa selama 15 menit dengan suhu 90⁰ C. Uji aktivitas antibakter terhadap *Klebsiella pneumoniae* ATCC 10031 menggunakan metode *difusi disk*. Konsentrasi pada infusa daun sirih yang digunakan adalah 60%, 80%, 100%.

Hasil penelitian menunjukkan bahwa infusa daun sirih merah (*Piper crocatum*) dan daun sirih hijau (*Piper batle L.*) memiliki aktivitas antibakteri terhadap *Klebsiella pneumoniae* ATCC 10031. Infusa daun sirih hijau memiliki daya hambat pada konsentrasi 60%, 80% dan 100% dengan rata-rata yaitu sebesar 11,3 mm, 8,6 mm, 9,7 mm dan pada daun sirih merah memiliki daya hambat pada konsentrasi 100% dengan rata-rata yaitu sebesar 14 mm.

Kata kunci : Infusa, *Klebsiella pneumoniae* ATCC 10031, antibakteri

ABSTRACT

PAMUJININGTYAS., A, 2019, ANTIBACTERIAL ACTIVITY TEST OF GREEN BETLE LEAVES (*Piper batle L.*) and RED BETLE LEAVES (*Piper crocatum*) INFUSION ON ATCC 10031 *Klebsiella Pneumoniae* BACTERIA, SCIENTIFIC WRITING, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Red betel leaves (*Piper crocatum*) and green betel leaves (*Piper batle L.*) are used in traditional medicine and are known to have antibacterial activity. The objective of this research is to determine the antibacterial activity of red betel leaves (*Piper crocatum*) and green betel leaves infusion (*Piper batle L.*) on ATCC 10031 *Klebsiella pneumoniae* bacteria. Green betel leaves contain chemical compounds of essential oils, while red betel leaves contain chemical compounds of oil volatile and alkaloid.

Red betel leaves and green betel leaves infusions were done by using distilled water solvent, by boiling it in the infusion pan for 15 minutes at 90⁰ C. Antibacterial activity test on ATCC 10031 *Klebsiella pneumoniae* was carried out by using the disk diffusion method. The concentration of the betel leaves infusion used as 60%, 80%, 100%.

The results indicate that the infusion of red betel leaf (*Piper crocatum*) and green betel leaf (*Piper batle L.*) has antibacterial activity on ATCC 10031 *Klebsiella pneumoniae*. The infusion of green betel leaves has a resistance at concentrations of 60%, 80% and 100% with an average of 11.3 mm, 8.6 mm, 9.7 mm. Mean while, the infusion of red betel leaves has a inhibitory power at a concentration of 100% with an average of 14 mm.

Keywords: Infusion, *Klebsiella pneumoniae* ATCC 10031, antibacterial