INTISARI

BALELAY, ACNP., 2018, UJI AKTIVITAS ANTIBAKTERI KOMBINASI MINYAK ATSIRI BATANG SEREH WANGI (*Cymbopogon nardus* L. Rendle) DAN DAUN NILAM (*Pogostemon cablin* Benth) TERHADAP *Staphylococcus aureus* ATCC 25923, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA.

Minyak atsiri batang sereh wangi mengandung komponen senyawa dengan kadar terbesar yaitu *Z-Citral* (49,41%), *E-Citral* (22,87), *Beta-Myrcene* (4,67), Nerol (3,32), *6-methyl-5-heptana-2-one* (2,44%). Minyak atsiri daun nilam mengandung komponen senyawa dengan kadar terbesar yaitu *Aromadendrene* (28,20%), *delta-Guaiene* (18,00%), *alpha-Guaiene* (14,87%), *Seychellene* (8,16%), *alpha-Patchoulene* (6,29%). Penelitian ini bertujuan untuk mengetahui aktivitas dari kombinasi minyak atsiri batang sereh wangi (*Cymbopogon nardus* L. Rendle) daun nilam (*Pogostemon cablin* Benth) sebagai antibakteri terhadap *Staphylococcus aureus* ATCC 25923.

Minyak atsiri batang sereh wangi dan daun nilam diperoleh dari hasil destilasi uap air. Kombinasi minyak atsiri diuji aktivitas antibakteri menggunakan metode difusi dengan perbandingan minyak atsiri batang sereh : minyak atsiri daun nilam (1:1), (1:2), (1:3), (2:1), (3:1) konsentrasi 50% dan metode dilusi dengan konsentrasi bertingkat yaitu 50%; 25%; 12,5%; 6,25%; 3,125%; 1,56%; 0,78%; 0,39%; 0,19%; 0,098%.

Hasil penelitian menunjukkan kombinasi minyak atsiri batang sereh wangi (*Cymbopogon nardus L.*) dan daun nilam (*Pogostemon cablin Benth*) memiliki aktivitas antibakteri terhadap bakteri *Staphylococcus aureus* ATCC 25923. Daya hambat yang paling aktif pada kombinasi minyak atsiri batang sereh wangi (*Cymbopogon nardus* L.) dan daun nilam (*Pogostemon cablin* Benth.) adalah perbandingan 3:1 dengan diameter daya hambat 20,33 mm dan Konsentrasi Bunuh Minimum adalah sebesar 6,25%.

Kata kunci: *Cymbopogon nardus* L. Rendle, *Pogostemon cablin* Benth, *Staphylococcus aureus* ATCC 25923, difusi, dilusi

ABSTRACT

BALELAY, ACNP., 2018, THE ANTIBACTERIAL ACTIVITY TEST TO COMBINATION OF THE ESSENTIAL OIL OF THE CITRONELA STALK (*Cymbopogonnardus* L. Rendle) AND THE PATCHOULI LEAVE (*Pogostemon cablin* Benth) AGAINST THE *Staphylococcus aureus* ATCC 25923, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

The essential oil of citronela stalk contains a large amount of compound components, which are *Z-Citral* (49.41%), *E-Citral* (22.87), *Beta-Myrcene* (4.67), Nerol (3.32), *6-methyl-5-heptana-2-one* (2.44%). Patchouli leave contains a large amount of compound components, which are *Aromadendrene* (28.20%), *delta-Guaiene* (18.00%), *alpha-Guaiene* (14.87%), *Seychellene* (8.16%), *alpha-Patchoulene* (6.29%). This study aimed to determine the activity of essential oil of citronela stalk (*Cymbopogonnardus* L. Rendle) and patchouli leave (*Pogostemon cablin* Benth) combinations as an antibacterial against the *Staphylococcus aureus* ATCC 25923.

The essential oil of citronela stalk and patchouli leave made from the steam and water distillation. The antibacterial activity tested by combining the essential oil of citronela stalk and patchouli leave using diffusion method with ratio (1:1), (1:2), (1:3), (2:1), (3:1) in 50% concentration and dilution method with multilevel concentration: 50%; 25%; 12.5%; 6.25%; 3.125%; 1.56%; 0.78%; 0.39%; 0.19%; 0.098%.

The result of this study showed that the combination of the essential oil of citronela stalk and patchouli leave had antibacterial activity against *Staphylococcus aureus* ATCC 25923. The most active growth inhibition zone by the essential combinations of the citronela stalk and the patchouli leave by the ratio 3:1 with the growth inhibition diameter of 20.33 mm and Minimum Bactericidal Concentration was 6.25%.

Keywords: *Cymbopogonnardus* L. Rendle, *Pogostemon cablin* Benth, *Staphylococcus aureus*ATCC 25923, diffusion, dilution.