ABSTRACT

Dayang Putri Dianada, NIM : 1423044, 2019. The difference in the zone of *Streptococcus pyogenes* inhibitor against Ampicillin in the *Blood Agar* media and *Mueller Hinton* with the addition of 5% sheep blood.

Background : *Streptococcus pyogenes* is Gram (+) cocci, β-hemolisa, sensitive to bacitracin, is one of the 10 biggest causes of death infection in the world. Ampicillin is one of the antibiotics recommended in the antimicrobial susceptibility test for *Streptococcus pyogenes*. *Streptococcus pyogenes* grows well in media containing blood or serum. The antimicrobial susceptibility test of *Streptococcus pyogenes* is recommended using *Mueller Hinton* agar media with the addition of 5% sheep blood. Medium *Blood Agar* is basal media, adding blood to the medium gives the best results for *Streptococcus pyogenes.*

Method : This research is experimental. The study sample was a pure strain of suspended *Streptococcus pyogenes* bacteria and its turbidity was likened to the Mcfarland 0.5 standard. The test was carried out on two media, namely *Blood Agar* Plate and *Mueller Hinton* with the addition of 5% sheep blood, with 16 plates each. Inoculation of the medium using the Spread plate method was then incubated at 37ºC for 24 hours. Data were analyzed using the Wilcoxon test.

Results : The average of inhibitory zones produced by *Streptococcus pyogenes* in the *Blood Agar Plate* medium is 41,94 mm and the average for *Mueller Hinton* media with the addition of 5% sheep blood is 36,19 mm. The Wilcoxon test results showed that there were differences in the zone of inhibition of Steptococcus pyogenes bacteria against ampicillin in medium Blood Agar and Mueller hinton with the addition of 5% sheep blood by looking at the probability (Sig.) Of 0,000 <0, 05.

Conclusion : Based on the research, it can be concluded that there are differences in inhibition zones of Streptococcus pyogenes bacteria against ampicillin in medium Blood Agar and Mueller hinton with the addition of 5% sheep blood.

Keywords: Inhibition Zone, *Streptococcus pyogenes* bacteria, Antimicrobial sensitivity test