

## ABSTRAK

### UJI SENSITIVITAS *Staphylococcus aureus* dan *Staphylococcus pseudintermedius* ISOLAT ASAL ANJING DAN KUCING dari “drh. NUGROHO ANIMAL CENTER SEMARANG” TERHADAP BERBAGAI ANTIBIOTIK

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*Staphylococcus aureus* (*S. aureus*) dan *Staphylococcus pseudintermedius* (*S. pseudintermedius*) merupakan dua spesies bakteri dari Genus *Staphylococcus* yang menjadi perhatian di dunia kedokteran hewan, khususnya terkait infeksi pada hewan peliharaan. Antibiotik merupakan pengobatan yang umum diberikan pada infeksi bakteri tersebut, tetapi terdapat strain *S. aureus* dan *S. pseudintermedius* yang resisten terhadap berbagai antibiotik sehingga mempersulit pemilihan pengobatan yang akan digunakan. Tujuan penelitian ini adalah untuk melihat pola resistensi *Staphylococcus aureus* dan *Staphylococcus pseudintermedius* yang diisolasi dari anjing dan kucing terhadap beberapa antibiotik.

Sampel yang digunakan dalam penelitian adalah *Staphylococcus aureus* dan *S. pseudintermedius* berjumlah 22 isolat yang diisolasi dari swab pasien anjing dan kucing dari “drh. Nugroho Animal Center Semarang”. Sampel diuji sensitivitasnya terhadap 8 (delapan) antibiotik menggunakan metode *disk diffusion* Kirby-Bauer. Media *Muller-Hinton Agar* (MHA) diinokulasikan dengan *S. aureus* dan *S. pseudintermedius* dan didiamkan selama 10-15 menit. Disk antibiotik diletakkan dalam media dan diinkubasi selama 18-24 jam pada suhu 37°C. Zona hambat yang terbentuk diukur dan diinterpretasikan berdasarkan standar Kirby-Bauer. Data yang diperoleh dianalisis secara deskriptif kualitatif.

Hasil uji sensitivitas *S. aureus* isolat asal anjing dan kucing telah resisten terhadap antibiotik tetrasiklin (75,50%/83,33%), penisilin dan ampisilin (75,00%/50,00%), oksasilin (58,33%/66,67%), klindamisin (16,67%/16,67%), eritromisin serta gentamisin (16,67%/0%). *S. pseudintermedius* isolat asal anjing telah resisten terhadap antibiotik ampisilin, penisilin, tetrasiklin (100%) serta oksasilin (66,67%). Sedangkan, *S. pseudintermedius* isolat asal kucing masih sensitif terhadap semua antibiotik yang digunakan.

**Kata kunci:** *Staphylococcus aureus*, *Staphylococcus pseudintermedius*, antibiotik, resistensi

## ABSTRACT

### SENSITIVITY TEST OF *Staphylococcus aureus* AND *Staphylococcus pseudintermedius* ISOLATES FROM DOGS AND CATS ORIGINATING FROM "drh. NUGROHO ANIMAL CENTER SEMARANG" AGAINST VARIOUS ANTIBIOTICS

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*Staphylococcus aureus* (*S. aureus*) and *Staphylococcus pseudintermedius* (*S. pseudintermedius*) are two bacterial species of the *Staphylococcus* genus that are of concern in veterinary medicine, particularly regarding infections in pets. Antibiotics are commonly used in the treatment of these bacterial infections, but there are strains of *S. aureus* and *S. pseudintermedius* that are resistant to various antibiotics, making the selection of appropriate treatment challenging. The aim of this study was to observe the resistance patterns of *Staphylococcus aureus* and *Staphylococcus pseudintermedius* isolated from dogs and cats against several antibiotics.

The samples used in the study consisted of 22 isolates of *S. aureus* and *S. pseudintermedius* isolated from swabs taken from canine and feline patients at "drh. Nugroho Animal Center Semarang". The samples were tested for sensitivity to 8 (eight) antibiotics using the Kirby-Bauer disk diffusion method. *MullerHinton Agar* (MHA) medium was inoculated with *S. aureus* and *S. pseudintermedius* and left for 10-15 minutes. Antibiotic disks were placed on the medium and incubated for 18-24 hours at 37°C. The resulting inhibition zones were measured and interpreted based on Kirby-Bauer standards. The data obtained were analyzed descriptively and qualitatively.

The sensitivity test results of *S. aureus* isolates from dogs and cats showed resistance to tetracycline (75.50%/83.33%), penicillin and ampicillin (75.00%/50.00%), oxacillin (58.33%/66.67%), clindamycin (16.67%/16.67%), erythromycin, and gentamicin (16.67%/0%). *S. pseudintermedius* isolates from dogs were resistant to ampicillin, penicillin, tetracycline (100%), and oxacillin (66.67%). Meanwhile, *S. pseudintermedius* isolates from cats remained sensitive to all antibiotics used.

**Keywords:** *Staphylococcus aureus*, *Staphylococcus pseudintermedius*, antibiotics, resistance