

INTISARI

PREVALENSI DAN PROFIL RESISTENSI *CAMPYLOBACTER* TERHADAP ANTIMIKROBA DI RUMAH POTONG HEWAN UNGGAS KABUPATEN BOGOR JAWA BARAT

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Infeksi *Campylobacter* dapat memicu berbagai gejala gastrointestinal dan menjadi salah satu faktor risiko penyakit autoimun pada manusia. *Campylobacter* terbukti telah banyak mengalami resistensi terhadap berbagai jenis antibiotik. Hal ini menyebabkan kemungkinan kegagalan terapi antibiotik yang tinggi pada pasien *Campylobacteriosis*. Penularan *Campylobacter* salah satunya adalah melalui konsumsi daging ayam yang terkontaminasi bakteri tersebut. Penelitian ini bertujuan untuk mengetahui prevalensi dan profil resistensi *Campylobacter* terhadap beberapa antibiotik di rumah potong hewan unggas Kabupaten Bogor Jawa Barat. Kajian dilakukan di empat rumah potong hewan unggas (RPHU) yang ada di Kabupaten Bogor Jawa Barat. Pemilihan RPHU mempertimbangkan pemotongan *livebird* yang besar, bersertifikat Nomor Kontrol Veteriner (NKV) atau dalam pembinaan NKV serta RPHU di wilayah tersebut banyak. Sampel berupa kulit ayam sebanyak 177 dipilih secara random. Pengujian yang dilakukan yaitu deteksi *Campylobacter* menggunakan media pengayaan Bolton *broth*, media selektif agar *modified Charcoal Cefoperazone Deoxycholate* (mCCD) dan agar Preston. Konfirmasi spesies *Campylobacter* menggunakan uji deteksi oksidase, pemeriksaan morfologi, pertumbuhan mikroaerobik 25°C dan aerobik 41,5°C. Isolat positif *Campylobacter* dilakukan uji *antimicrobial susceptibility testing* (AST) dengan metode *disk diffusion* untuk mengetahui resistensi terhadap siprofloksasin, eritromisin, gentamisin, asam nalidiksat, tetrasiklin dan streptomisin. Hasil analisis mengindikasikan 77 dari 177 sampel adalah positif *Campylobacter* dan sebagian besar resisten terhadap siprofloksasin (45/50), asam nalidiksat (44/50) dan tetrasiklin (31/50). Sebanyak 7 dari 50 isolat mengalami *multidrug resistant*. Penelitian ini menunjukkan bahwa prevalensi *Campylobacter* di RPHU Kabupaten Bogor Jawa Barat adalah 43,5%. Proporsi isolat *Campylobacter* yang resisten terhadap siprofloksasin 90%, asam nalidiksat 88%, tetrasiklin 62%, gentamisin 10%, eritromisin 8%, dan streptomisin 4%.

Kata kunci: *Campylobacter*, kulit ayam, prevalensi, resistensi antimikroba, rumah potong hewan unggas.

ABSTRACT

PREVALENCE AND ANTIMICROBIAL RESISTANCE PROFILE IN *CAMPYLOBACTER* AT POULTRY SLAUGHTERHOUSES IN BOGOR REGENCY WEST JAVA

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Campylobacter infection can trigger various gastrointestinal symptoms and become one of the risk factors for autoimmune diseases in human. *Campylobacter* has been proven to have resistance to various types of antibiotics. This leads to a high likelihood of treatment failure for Campylobacteriosis patients. *Campylobacter* can be transmitted through the consumption of chicken meat contaminated with the bacteria. The objectives of this study are to determine the prevalence and antimicrobial resistance profile of several antibiotics in *Campylobacter* from the slaughterhouses in Bogor Regency, West Java. This study was conducted in four poultry slaughterhouses in Bogor Regency, West Java. These four slaughterhouses were chosen considering large number of slaughters, Nomor Kontrol Veteriner (NKV)-certified or under government's inspection and many slaughterhouses exist in the area. A total of 177 randomly selected chicken skins were used as samples. Isolation tests were conducted to detect *Campylobacter*. Bolton broth was used as bacteria enrichment medium. Modified Charcoal Cefoperazone Deoxycholate (mCCD) agar and Preston agar were used as bacteria selective media. Oxidase activity detection, morphology examination, microaerobic growth at 25°C and aerobic growth at 41,5°C were used as *Campylobacter* species confirmation method. Positive isolates were tested for antimicrobial susceptibility using the disk diffusion method to determine the resistance to ciprofloxacin, erythromycin, gentamicin, nalidixic acid, tetracycline and streptomycin. The result from the analysis indicated 77 of 177 samples were *Campylobacter* positive and mostly resistant to ciprofloxacin (45/50), nalidix acid (44/50), and tetracycline (31/50). Seven of 50 isolates were multidrug resistant. This research showed that the prevalence of *Campylobacter* at poultry slaughterhouses in Bogor Regency West Java is 43,5%. The proportions of the isolates resistant to ciprofloxacin, nalidixic acid, tetracycline, gentamicin, erythromycin, and streptomycin were 90%, 88%, 62%, 10%, 8%, and 4%, respectively.

Keywords: antimicrobial resistance, *Campylobacter*, chicken skin, poultry slaughterhouse, prevalence.