

Study of Inappropriate Antibiotic Usage in Poultry in East Nusa Tenggara

Diana A. Wuri ^{1*}, Annytha Detha ¹, Filomena Ramos², Desi Biru², Margie Meha², Anita Lakapu²

¹Department of Animal Diseases and Veterinary Public Health, Veterinary Faculty, Nusa Cendana University, Kupang, Indonesia

²Veterinary Faculty, Nusa Cendana University, Kupang, Indonesia.

*Corresponding author's email: nana_bale@yahoo.co.id

Keywords: Antibiotic, Inappropriate usage, poultry.

INTRODUCTION

Misuse of antibiotics for livestock affects the health of livestock itself, such as resistance, treatment failure and also affect the food of animal origin (Yuningsih, 2005). Based on research on some traditional and modern markets in Kupang City showed that the presence of tetracycline residues in 2 chicken samples (Ngangguk et al., 2015). The purpose of this study was to determine the percentage of antibiotic use of poultry without prescription from veterinarians and the type of antibiotics often used in poultry in Kupang City, East Nusa Tenggara.

MATERIALS AND METHODS

This research was conducted on chicken farms in 6 sub districts in Kupang City. The questionnaire sample was distributed to 100 respondents of poultry.

RESULT AND DISCUSSION/DISCUSSION

Based on the results of the study, as many as 51% of farmers who already know about the provision of antibiotics and who do not know 49%. Understanding of antibiotics by farmers has not been fully in accordance with the true sense. this is evidenced by the results showing only 7% who know the exact antibiotic function while 93% of respondents do not know.

According to Oh et al. (2011) knowledge and attitudes towards the use of antibiotics in the community play an important role in the success of disease treatment process. The results of research Wowiling et al. (2013) indicates that counseling has an effect on the level of public knowledge about antibiotics.

The reason for farmers doing the treatment is independently (without a veterinary prescription) that is already know the technique of giving based on information from other communities about the treatment of sick livestock (60% of respondents). The absence of an animal health center is the reason farmers conduct treatment without veterinarians (34% of respondents), while there are no animal health workers in Puskesmas at 4% (Table 1).

Table 1. The reason farmers provide antibiotics or treatment without a vet prescription

The reason for farmers	Percentage of respondents
Able to self-medication	60%
No nearby Puskesmas	34%
There was no officer at Puskesmas	4%

Based on the data obtained that there are 98% of breeders can freely buy antibiotics at various veterinary shops in Kupang City without including a vet recipe. The results of this study in accordance with the results of previous studies that show that some of the people know antibiotics wrongly as evidenced by the high use of antibiotics without a prescription (Sadikin, 2011). The action taken by the farmer if the livestock given antibiotics did not succeed to cure the livestock sold 30%, killed and then consumed 17%, livestock that did not recover left only 7% and after the livestock is given antibiotics then there is no healing for the livestock then the farmer reports to the animal health officer as much as 6% and also disposed / buried as much as 40% (Table 2).

Table 2. Measures from farmers when antibiotics are not successful

Measures from farmers	Percentage of respondents
immediately sold	30%
Consumed	17%
Just ignore it	7%
Reporting to the officer (after not recovering)	6%
Dumped / Buried	40%

Based on the results of the research, the most commonly used type of antibiotics is from the Tetracycline class of 95% with each trade name ie Doxi Vet® 48% (active ingredient Dicycline), Terramycin 29%, Vet Oxy® 12% and Piroxy® 1% with active ingredients Oxytetracycline). Next 5% Penicillin and Aminoglycoside groups under the tradename Penstrep® 5% and other antibiotics Medoxy® and Tetra-Chlor®5% (Figure 1).

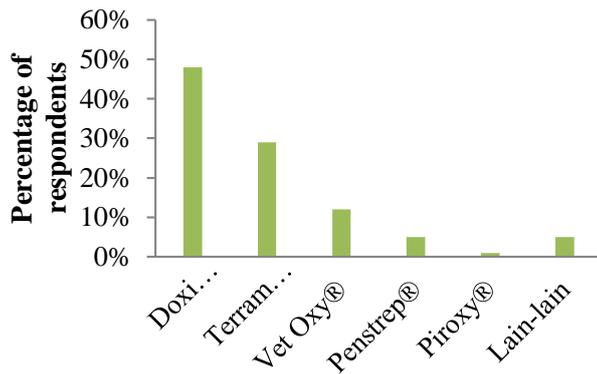


Figure 1. Types of trade names of antibiotics used

CONCLUSION

Provision of antibiotics in chickens without veterinary prescription as much as 98% on the grounds can do their own treatment without a veterinarian. The lack of community knowledge leads to inappropriate application by farmers.

REFERENCES

- [1] Ngangguk CA, Detha AIR, Wuri DA. 2015, Pengkajian Residu Tetrasiklin Dalam Daging Ayam Pedaging, Ayam Kampung Dan Ayam Petelur Afkir Yang Dijual Di Kota Kupang Fakultas Kedokteran Hewan, Universitas Nusa Cendana, Kupang, *Jurnal Kajian Veteriner*, **2(2)**:175-181.
- [2] Oh AL, Hassali MA, Al-Haddad MS, Sulaiman SAS, Shafie AA, Awaisu A. 2011. Public knowledge and attitudes towards antibiotic usage: a crosssectional study among the general public in the state of Penang, Malaysia. *J Infect Dev Ctries*, **5(5)**:338-347.
- [3] Wowiling, Chalvy LR, Goenawi G, Citraningtyas. 2013. Pengaruh Penyuluhan Penggunaan Antibiotik terhadap Tingkat Pengetahuan Masyarakat di Kota Manado. *Pharmacon Jurnal Ilmiah Farmasi UNSRAT*, **2(3)**:24-28.
- [4] Yuningsih. 2005, 'Keberadaan Residu Antibiotik Dalam Produk Peternakan (Susu dan Daging)', *Lokakarya Nasional Keamanan Pangan Produk peternakan*, 48-55.
- [5] Sadikin ZD, 2011, Penggunaan obat yang rasional, *Jindon Med Assoc*, **61(4)**: 145-148