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► **To cite this version:**

Ijaz Ahmad, Lingli Huang, Haihong Hao, Pascal Sanders, Zonghui Yuan. Corrigendum to “Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction”. *BioMed Research International*, 2017, 2017, pp.1408737. 10.1155/2017/1408737 . anses-01670638

HAL Id: anses-01670638

<https://anses.hal.science/anses-01670638v1>

Submitted on 21 Dec 2017

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Corrigendum

Corrigendum to “Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction”

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Received 17 September 2017; Accepted 12 October 2017; Published 6 November 2017

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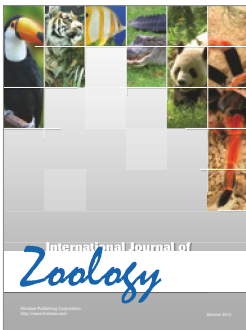
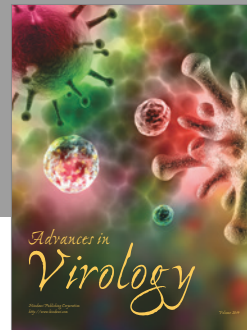
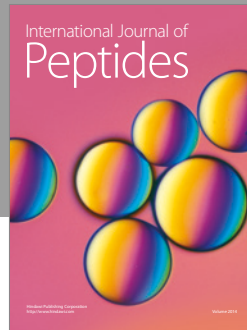
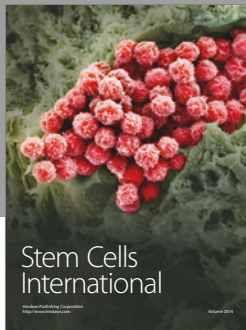
In the article titled “Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction” [1], there was an error in Table 3. Some antibiotic groups were not correctly classified in Table 3 as raised by Benini and Fumagalli in [2]. The correct statement is that ketolides exhibit concentration-dependent killing and have prolonged persistence and the PK/PD indices responsible for efficacy are AUC₂₄/MIC. Clindamycin and vancomycin exhibit time-dependent killing and have moderate to prolonged persistence and PK/PD indices responsible for efficacy are AUC₂₄/MIC. The corrected table is shown as follows (see Table 3).

TABLE 3: Classification of antibacterial drugs according to pharmacokinetics and pharmacodynamics indices: different groups of antibacterials, their bacterial effect, and PK/PD integration most closely related their clinical effect.

Group	Drugs	PK/PD indices	Activity	Bacterial effect	Duration of PAE	References	
1	Aminoglycosides	C_{max}/MIC or AUC/MIC	Primarily bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]	
	Fluoroquinolone	AUC/MIC	Bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]	
	Enrofloxacin e	$C_{peak}/MIC/AUC : MIC$	Bacteriostatic bactericidal	Concentration-dependent		Balaje et al., 2013 [49]	
	Azithromycin	AUC_{24}/MIC					
	Tetracycline	AUC_{24}/MIC	Bacteriostatic	Time-dependent	Prolonged	Martinez et al., 2014 [17]	
	Colistin	AUC/MIC			Concentration-dependent	Short	Hengzhuang et al., 2012 [59]
	Metronidazole	$C_{peak}/MIC/AUC : MIC$			Concentration-dependent		Paul et al., 2005 [60]
2	Ketolides	AUC/MIC	Bacteriostatic or bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]	
	Penicillins Carbapenems Cephalosporins	$\%T > MIC$	Bactericidal	Time-dependent	Non or brief against Gram-negative and prolonged against Gram-positive	Martinez et al., 2014 [17]	
	Lincosamides (clindamycin)	AUC/MIC	Bacteriostatic	Time-dependent	Brief	Martinez et al., 2014 [17]	
	Trimethoprim	$\%T > MIC$	Bacteriostatic alone and bactericidal with combination	Time-dependent	Brief	Martinez et al., 2014 [17]	
	Glycopeptides (vancomycin)	AUC/MIC	Bactericidal	Time-dependent	Prolonged	Martinez et al., 2014 [17]	

References

- [1] I. Ahmad, L. Huang, H. Hao, P. Sanders, and Z. Yuan, "Application of PK/PD modeling in veterinary field: dose optimization and drug resistance prediction," *BioMed Research International*, vol. 2016, Article ID 5465678, pp. 1–12, 2016.
- [2] A. Benini and G. F. Fumagalli, "Comment on 'application of PK/PD modeling in veterinary field: Dose optimization and drug resistance prediction,'" *BioMed Research International*, vol. 2017, pp. 1–2, 2017.



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